Accelerando See also "Beaming: Feathered beaming."

The word "accel." or "accelerando" is a Text Expression, which you put into your score with the Staff Expression ⬛ or Score Expression Tool ⬛ . You can also define it to affect playback.

TO PLACE THE WORD "ACCELERANDO" INTO A SCORE

* Click the Staff Expression Tool ⬛ (to place the marking in one staff) or the Score Expression Tool ⬛ (to place it in several or all staves).

* Click on, above, or below the note (for Staff Expression) or measure (for Score Expression) to which you want to attach the marking. The Staff Expression or Score Expression Selection box appears. If you see the "Accel." expression in the list, double-click it and click OK. You return to the score.

* If the expression is not in the list, click Create. The Text Expression Designer appears.

* Type "Accel." or "Accelerando." Click Set Font to change the type style.

* Click OK or Select in each dialog box to return to the score.

TO MOVE OR DELETE THE EXPRESSION

* Click the tool (Staff Expression or Score Expression) that created the expression.

* Click the measure (Score Expression) or note (Staff Expression) to which the expression was attached. Its handle appears.

* Drag the handle to move the expression. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it.

TO DEFINE THE EXPRESSION FOR PLAYBACK

* Click the tool (Staff Expression or Score Expression) that created the expression. If you haven't yet placed the mark in the score, click any note (or measure). When the palette appears, click the desired symbol, click Edit, click Playback, then skip to the instruction marked by the coda sign.

* Click the measure (Score Expression) or note (Staff Expression) to which the expression was attached. Its handle appears.

* CTRL-Shift–double-click the handle. The Playback Definition dialog box appears.

⊕ Click Tempo, then click Execute Shape. As you proceed through the dialog boxes, click Create, "Shape ID", and Create. You're now in the Shape Designer.

* Click Grid. Enter 36 (EVPUs) and click Show Grid. A network of gridlines appears. For the moment, each vertical gridline represents one eighth-note duration (36 EVPUs), and each horizontal gridline represents a one point increase in tempo (from 150 to 151 beats per minute, for example).

* Enter 288 in both the X: and Y: boxes. Click the Line Tool ⬛ .You just drew a *graph* (an Executable Shape) of the tempo during the accelerando. As you see, the line stretches for eight horizontal gridlines (or eighth notes)—this accelerando will last for one whole note. The line also crosses eight vertical gridlines, meaning the tempo will only increase by eight beats per minute.

* Press OK, then Select, to exit the Shape Designer.

* In the Level Scale boxes, enter 8:1. You probably wouldn't even be able to perceive the accelerando if it only sped up by eight points during a whole note. By changing the Level Scale, you're *multiplying* the degree of accelerando. If you enter 8:1, the tempo will change by 64 points—a very distinguishable accelerando. At this point you could also specify a different Time Scale, which would determine *how long* the executable shape will last. When you designed the shape, it crossed eight gridlines (eighth notes)—one whole note. Change the Time Scale to *multiply* that amount. A Time Scale of 1:2 would make the accelerando last half as long (a half note), and 3:1 would create one that would last three times as long (twelve beats).

Via Ronchi 16 Lun 12.30

Via Ronchi 16 Lun 12.30

- Click OK or Select in each dialog box to return to the score. Listen to the accelerando and see how it works. If it doesn't speed up enough, increase the Level Scale. If it lasts too long, decrease the Time Scale. (The effect of the accelerando will vary according to the current tempo.)

Accents

Accent marks (> and ∧) are Note Expressions. If you've loaded a Note Expression library into your file, you don't have to create the symbol anew.

TO CREATE AN ACCENT MARK ON A NOTE

- Click the Note Expression Tool 🔲.
- Click on, above, or below the note. The Note Expression Selection box appears.
- If you see the accent mark in the selection box, double-click it. You return to the score, and the mark is attached to the note.
- If you don't see it, click Create. The Note Expression Definition dialog box appears.
- Type Shift-period (.). In the Petrucci music font, Shift-period is the accent mark (>). For the ∧ mark, type Shift-6. For the staccato accent (≥ or ≯), type ALT0223 or ALT0249, respectively. For a marcato staccato mark (Δ), type ALT0172. Finally, for the 7 mark, type ALT0232.
- Click OK, then Select.

TO MOVE OR DELETE AN ACCENT

- Click the Note Expression Tool 🔲.
- If the mark's handle isn't visible, click the note to which it was attached.
- Drag the handle to move the symbol. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the mark and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO DEFINE AN ACCENT FOR PLAYBACK

- Click the Note Expression Tool 🔲. If you haven't yet placed a mark in the score, click a note to be accented. When the palette appears, click the desired symbol and click Edit, then skip to the instruction marked by the coda sign.
- Click the accented note. A square handle appears.
- Double-click the handle. The Note Expression Definition box appears.
- Click the word Playback. The Playback Definition box appears.
- Click Key Velocity Based and type a velocity value into the Top Note box. The value you're entering here determines how much louder the accented note should sound compared to a non-accented note. Its value must be between −127 (which would sound much *softer* than other notes) and 127. (A number between 20 and 30 produces a musically satisfying accent.)
  You can also specify a value in the *Bottom Note* box. If you place an accent on a chord, the top note will have the velocity change indicated in the Top Note box, the bottom note will have the change specified in the Bottom Note box, and the inner notes will be scaled proportionally between the two values.
- Click OK or Select in each dialog box to return to the score.

TO COPY ACCENTS (AND OTHER ARTICULATIONS)

See "Expressions: Note Expressions—To copy Note Expressions."

Accidentals

Accidentals (such as sharps, flats, and naturals) appear automatically if you've entered the music from a MIDI keyboard. When you enter music in real time, Finale decides the identity of an accidental based on the direction of the melodic line:
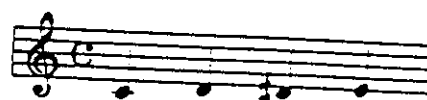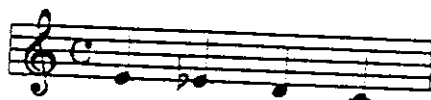
When you enter music with HyperScribe or the Transcription Tool, Finale takes into account the melodic contour when it decides what to call a particular chromatic pitch. For example, in the example at left, Finale called the second note an E♭ because the melody descends. At right, it called the same pitch a D♯ because the melody ascends.

TO CHANGE AN ACCIDENTAL TO ITS ENHARMONIC EQUIVALENT

See "Enharmonics—To change a note to its enharmonic equivalent."

TO CHANGE EVERY OCCURRENCE OF A NOTE TO ITS ENHARMONIC EQUIVALENT

See "Enharmonics—To change all occurrences of a note."

TO HIDE (OR SHOW) AN ACCIDENTAL

• Click the Speedy Note Entry Tool 🔳 . Click the measure containing the accidental.
• Use the arrow keys to position the insertion bar and crossbar on the target note.
• Press the asterisk (*) key. The accidental disappears but the note's pitch doesn't change. Finale still plays as though the accidental were visible. If you press the asterisk again, the accidental reappears.

TO ADD OR CHANGE AN ACCIDENTAL

• Click the Speedy Note Entry Tool 🔳 . Click the measure containing the accidental.
• Use the arrow keys to position the insertion bar and crossbar on the target note.
• Press the plus (+) key to raise the note's pitch, and the minus (–) key to lower it, by half steps. If you press these keys repeatedly, you can add multiple sharps or flats to a note. If you press the CTRL key as you do so, all subsequent notes on the same line or space in the measure also change. When using CTRL, do not use Shift-Equal (=) to generate a Plus (+).

TO MOVE AN ACCIDENTAL

• Click the Special Tools Tool 🔳 . Click the measure containing the accidental. The Special Tools window appears.
• Click the Accidental Tool 🔳 . A handle appears on each accidental in the measure. Click Boxes if a handle obscures the accidental you want to move.
• Drag any handle horizontally. If you've made the handles invisible (by deselecting Boxes), drag the accidental itself where the handle would appear.
• Double-click the Control-menu box of the Special Tools window (upper left). If you want to undo any accidental repositioning you've done, click the accidental's handle (in the Special Tools window), and press Delete.

Adding tracks

See "Real-time recording—To add tracks."

a 2

See "Expressions: Staff Expressions."

Aftertouch

Aftertouch is the MIDI signal transmitted when the pressure you apply to a key changes after you've struck it. Finale records and *plays* both *monophonic* and *polyphonic* aftertouch.

When you record a performance with the Transcription Tool 🔳 , Finale automatically records all your aftertouch data. You may or may not want this information retained ("captured") so that you can later hear it applied to the playback of your *transcription*. For a more complete description of captured MIDI information, see "Transcription window" in *Finale Reference*.

TO RETAIN AFTERTOUCH DATA FOR SCORE PLAYBACK

• Record a performance with the Transcription Tool 🔳 .

• Before saving or transcribing the performance, click Capture MIDI Xpression. If Use Captured MIDI Expressions is selected in the Playback Options dialog box (in the Playback menu), you will hear aftertouch applied when you play back the transcription.

Alla Breve See "Cut time."

Allotments When you first enter music into Finale, its spacing is *linear*. A whole note gets exactly the same horizontal space as four quarter notes. When a piece of music is typeset professionally, the engraver uses tables of width measurements for various note values to create *nonlinear spacing*, where notes of different duration occupy only as much space as they need.

In Finale, these width tables are called Allotment Libraries. Allotments are width measurements, one per rhythmic value. For example, in the library called ALOTQ4-0.LIB, a quarter note is given 96 EVPUs and an eighth note is given 72 EVPUs (ENIGMA Virtual Page Units, of which there are 288 per inch). By spacing your music with the aid of an Allotment Library, you can create extremely professional-looking scores, which are neither wider nor narrower than they need to be.

There are three Allotment Libraries provided with Finale: ALOTQ3-0.LIB, ALOTQ3-5.LIB, and ALOTQ4-0.LIB. These numbers indicate the relative "wideness" of the allotment values. Music that is spaced using ALOTQ3-5.LIB is "tighter" than music spaced with ALOTQ4-0.LIB. (These "Q" values describe the width, in *spaces*, allotted to a quarter note. A *space* is a unit of measurement used in engraving that corresponds to the distance between two staff lines. In Finale, a space is equivalent to 24 EVPUs—remember, there are 288 EVPUs per inch.)

You apply an allotment library's spacing to your music by selecting the desired region and using Mass Mover Metatool 3 (described on the following page). You can also create your own Allotment Libraries.

In the figure below, you can see the various spacing effects provided by the use of different Allotment Libraries. The top example is *linear* spacing (the default, before you apply Mass Mover Metatool 3). The second shows the effects of Metatool 3 without having any Allotment Library loaded. The last three examples were spaced with ALOTQ4-0.LIB, ALOTQ3-5.LIB, and ALOTQ3-0.LIB, respectively.

Linear spacing
(default)

Nonlinear (with no
Allotment Library loaded)

Nonlinear (with Allotments
Q = 4 Library loaded)

Nonlinear (with Allotments
Q = 3.5 Library loaded)

Nonlinear (with Allotments
Q = 3 Library loaded)

TO LOAD AN ALLOTMENT LIBRARY INTO AN OPEN FILE

• Choose Load Library from the File menu. A list box appears, letting you navigate through the directories on your disk. Find and open the LIBRS directory.

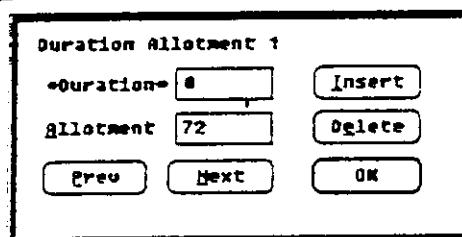• Double-click the name of the desired Allotment Library.

TO USE AN ALLOTMENT LIBRARY FOR MUSIC SPACING

• Click the Mass Mover Tool 🖳.

• Select the music you want respaced. In general, you'll want to choose Select All from the Edit menu, so that all staves are highlighted. (If you select only one staff, for example, you could get unexpected results, because the respacing Metatools set the measure widths for *all staves* according to the spacing of the *selected* region. Thus, if you select and respace measure 1 in the flute staff, which contains only a whole note, the running eighth notes in another staff's measure 1 will be compressed and overlapping.)

• While pressing the 3 key, double-click the highlighted region. This process takes time, but when the "churning truck" cursor disappears, you'll find that your music has been carefully respaced according to the Allotment Library's specifications. The Metatool you have just used, Mass Mover Metatool 3, uses the Allotment Library to space your music on a *beat-by-beat* basis. You can also opt for Mass Mover Metatool 4, which respaces on a *note-by-note* basis. For a more complete discussion of these alternatives, see "Entry Layout dialog box" in *Finale Reference*.

TO EDIT AN EXISTING ALLOTMENT LIBRARY

These libraries were constructed by listing rhythmic values—from 64th note to double whole note—and assigning each a horizontal space-measurement. However, the rhythmic values included are the 22 most frequently used. There's no allotment defined for, say, a quintuplet quarter note. Such values are allotted a catch-all "default" value. In the case of tuplets in particular, and your own tastes in general, you may want to alter the allotment libraries.

- Load an existing Allotment Library as described previously.
- Click the Mass Mover Tool 🔲 and click any measure.
- Choose Layout to Entries from the Mass Edit menu. The Entry Layout dialog box appears.
- Click Allotments. The Duration Allotment dialog box appears, displaying a durational value (measured in EDUs, 1024 per quarter note) in the top box and its allotted horizontal width (measured in EVPUs, 288 per inch) in the bottom box. Click "Duration" to see the closest notated equivalent of the EDU value. If you click the Prev and Next buttons, you can step through the various rhythmic values to see what horizontal space each has been assigned. (To help you with the math, remember that 512 EDUs is an eighth note.) Or click "Duration" and click the durational value whose allotment you want to change.

Duration Allotment 1

- Duration: `8`   **Insert**
- Allotment `72`   **Delete**
- **Prev** **Next**   **OK**

- Click Prev or Next until you locate the rhythmic value whose width you want to alter. Enter its new value in the bottom text box. In the quintuplet example, you'd actually want to create a *new* rhythm/width pair, and insert it into the existing library.
- To create a new rhythm/width pair, enter the rhythm value (in EDUs) in the top box, and its width allotment (in EVPUs) in the bottom box, then click Insert. When you do this, it will appear that you've typed over an existing duration/allotment pair. Not so. When you click Insert, you merely add your new pair to the library.
  Similarly, you can remove the displayed duration/allotment pair by clicking Delete.
- When you're finished, click OK, once in each dialog box. Use Mass Mover Metatool 3 or 4 to apply the new allotments to your score.

TO CREATE A NEW ALLOTMENT LIBRARY FROM SCRATCH

- Load one of the existing libraries. You'll save time by simply modifying the allotment values of an existing library.
- Click the Mass Mover Tool 🔲, and click any measure.
- Choose Layout to Entries from the Mass Edit menu. The Entry Layout dialog box appears.
- Click Allotments.
- Type over the existing allotment value for each duration value and click Next. Insert new duration values as needed, following the steps in "To edit an existing Allotment Library," above.
- When you're finished, click OK (once in each dialog box). Use Mass Mover Metatool 3 or 4 to apply the new allotments to your score.

TO SAVE YOUR EDITED OR NEWLY CREATED ALLOTMENT LIBRARY

- Choose Make Library from the File menu. The Make Library dialog box appears.
- Click Allotments, then click Make.
- Type a filename and click Make. The next time you need your customized spacing, load this modified library (choose Load Library from the File menu) and apply the spacing using Mass Mover Metatool 3 or 4.

Alto clef The alto clef is number 1 in Finale's default clef-numbering scheme. Any clef change in Finale is fully intelligent, renotating the music as necessary without affecting playback. For information on creating clefs of your own and changing the default clef for new staves, see "Clefs."

To SET A STAFF (OR CHANGE A STAFF) TO ALTO CLEF

- Click the Clef Tool ⬚.
- Click the measure where you want the alto clef to begin. The Clef for Measure (#) dialog box appears. (If there's no music in the measure, Finale asks if you want to insert a "real" whole rest so that it can proceed with the clef change. Click OK.)
- Type 1 into the *Clef* box. Alternate method: click the *word* *Clef* and double-click the alto clef (second from the left, top row) in the palette that appears.
- If the new clef is to begin the measure, click OK. A box appears, asking you to specify the region to be affected. (At the end of this region, the clef currently in force will be restored.) Click the appropriate region description.
- If the new clef is to begin in the middle of the measure, click Go to Multiple. You return to the score with the clef—which now has a handle—at the beginning of the staff.
- Drag the clef's handle right, left, up, or down, positioning it as desired. The notes before and after it will be renotated automatically.

Annotative music See "Ossia."

Annotative text You can place annotative text, in any font and size, anywhere in the score. Such annotations would be appropriate for a note to the performer, an extra or optional set of lyrics, or—if you're preparing a textbook or examination—explanatory text.

Don't use this method for placing *one-line musical annotations* such as "Allegro," "With feeling," or tempo indications. Instead, use Score Expressions or Staff Expressions for such markings (see "Expressions"). And don't use this method for titles, page numbers, copyright notices, or other page-related text. Instead, use the Header/Footer Tool (see "Titles," "Page numbers," "Copyright notices," and so on).

To create annotations in Finale, you'll create a *text block*. Text blocks in Finale have two elements: the text itself, and the *layout definition* (the invisible enclosure that contains it). Most of the time you'll want the layout definition to be a simple rectangle, but the layout definition can be any enclosed shape. You can even create a second, *inner* enclosed shape, and "pour in" the text around it (to create a donut effect, for example). You can design your own layout definition or, by choosing Load Library from the File menu, you can load TEXTLAY.LIB provided with Finale, which contains a selection of predesigned enclosure shapes.

There are two parts to a text block: the raw text itself (top left) and the layout definition—the shape into which it's "poured," including any cutout shapes (bottom left). To create examples like this one, position the musical excerpt so that it falls in the cutout shape.

TO CREATE A TEXT BLOCK

- Click the Text Block Tool 🔲 . There are two kinds of text blocks. A *measure* text block, which you create in Scroll View, remains attached to its measure in the score, even if the measure's position in the score changes. A *page* text block, which you create in Page View, remains fixed to its spot on the page, regardless of any changes made to the layout of the music around it.

  To add a measure text block, perform the following steps in Scroll View. To add a page text block (which won't show up at all in Scroll View), perform the following steps in Page View.

- Double-click the page (or click the measure, if you're in Scroll View). The Text Block Assignment dialog box appears.

- Click *Text Block/Layout Definition ID*. In the next box, click *Text Block*. Finale's text processor appears. If you've entered the text already, click the Next button until the text is displayed in the window, and skip to the instruction marked by the coda sign.

- Type the annotative text. While you should set the primary font for the text block from the Font Selection command (Special menu), you can use the Set Font button within this window to create font changes *within* the text (you might want to set a stage direction in italics, for example). Select the text whose font, size, or style you want to change by dragging through it (so that the desired text is highlighted). Click the Set Font button. Choose a font variation from the Text Font, Size and Style dialog box and click OK. When you return to the text processor, Finale adds some coded font instructions for its own use at the location of each font change—something like "^font (Tms Rmn)^size (12)." These codes won't appear in the score.

- Click OK. You return to the Text Block/Layout Definition dialog box. Finale displays a number in the *Text Block* box, identifying by number the *text* portion of the text block you're creating.

- Click *Layout Definition*. The Layout Definition Selection dialog box appears. If you've loaded a Text Layouts Library, those enclosure shapes appear in this window. If you'd rather not create your own shape, double-click the one you want, and skip to the next instruction marked by the coda sign.

- Click Create. In the next box, click *Main Shape*, and then Create again. You're now in the Shape Designer, where you can design the invisible enclosure that will contain the text of your text block. In the following steps, you'll create a simple rectangular shape (which is probably what you'll want most of the time).

- Drag the gray handles so that the bounding box is the size and shape you want for your layout shape. If your text block needs to be larger than the Shape Designer display area, click View; you can "zoom out" by typing a smaller percentage into this box, so that your view of the shape will fit on the screen. You may want to view at 25% for a text block that's as large as the page itself, for example.

  Because the bounding box itself is a rectangle, you don't even need to use any of the Shape Designer drawing tools to create your rectangular layout shape. You can create *any* enclosed shape—a triangle, a circle, a diamond—to contain the text of your text block. For a more complete discussion of the Shape Designer, see "Shape Designer."

- Click OK, then Select. You return to the Layout Definition window.

- Specify the handle position, justification, and font variations for the text block. In this dialog box, you define the way in which the text interacts with the enclosure. By clicking the Text button, you can now see the text in the layout you designed (or selected). The black round handle moves the shape while you're in this window. The black round handle shows you where the text block's handle will be once it's in the score. Make sure the black handle is on the edge of, or within, the text itself so that it will be easy to find once it's in the score. Click the View button to change the percentage view resolution (to "zoom in" or "zoom out").

You may also choose one of the justification options for the text within its rectangle: Left (flush left), Right (flush right), Centered (each line is centered within the layout shape), or Full (touching both right and left margins). You can also specify the line spacing (leading). See "Layout Definition dialog box" in *Finale Reference* for a more detailed discussion of the options in this box.

- Click OK, then Select. You return to the Text Block/Layout Definition dialog box.
- Click OK in each of the remaining dialog boxes to return to the score.

TO MOVE OR DELETE A TEXT BLOCK

Make sure you're in the same view (Page or Scroll) you were in when you created the text block.

- Click the Text Block Tool ⌷. A handle appears on each text block created in Page View. If you're in Scroll View, click the measure to which the text block was attached, so that its handle appears.
- Drag a text block's handle to move it. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove the text block. If you have trouble finding a text block's handle, here are two tips. First, if you're in Page View, the text block you're looking for might be a *measure* text block—one created in Scroll View by clicking a measure. If so, its handle won't appear at all in Page View. If you're sure you're in the correct view, consider the possibility that the handle is off the screen (because a handle isn't always in the same place with respect to its text). Try "zooming out" by choosing View at 50% from the View menu, or by choosing View at X% from the View menu, and entering an even smaller value. No matter how small the view gets, the square handles are always the same size, so a text block handle should be easy to spot if the view is reduced.

TO MAKE ROOM (BLANK SPACE) FOR ANNOTATIVE TEXT

If you're placing an annotation in a score, you may need to move some music out of the way. You can create blank space an entire page at a time, or you can just move some of the music to make room.

- Click the Page Layout Tool ⌷. Finale switches to Page View, if it's not already there.
- Click the page on which you want to make room. You enter the Page Layout window.
- If you want to clear all music from the page, click Blank Page. Finale pushes all the music from this page onto the next page (and so on for subsequent pages of music to the end, where it creates a new page to compensate). You can never lose music by clicking Blank Page.
- If you want to make room above, below, or between systems, click Staff Systems. Locate the system just *above* the annotation insertion point, and drag its lower-right handle down. When you drag the lower-right corner of a system downward, all systems that follow are pushed downward as well, creating a blank space below the dragged system. Feel free to indent systems, move them up or down, or position them as you want to make room for the annotation.
- Click OK.
- Choose Recalc Music from the Edit menu.

Approximate pitch See "Headless notes," "Note shapes."

Arpeggio See "Rolled chords."

ARROWS

Arrows If you want to create an arrow—for example, to indicate the direction of a strum or glissando—you can do so with Finale's Shape Designer. An arrow is placed into the score as a Staff Expression. For full instructions, see "Shape Designer."

Articulations Articulations—single-symbol indications that provide information about how a note is to be played—are called Note Expressions in Finale. For information on the creation, placement, playback, and other aspects of articulation marks, see "Expressions: Note Expressions." See also the specific entries for the markings you're trying to create.

Artificial harmonics See "Harmonics."

Attacks See "Expressions: Note Expressions," "Real-time recording (Transcription Tool)—To edit keyboard notes," "Rolled chords."

Attack and Release You can control the attack and release points for a single note, the notes of a chord (to produce a rolled chord effect), or for all notes in a specified region. See "Expressions: Note Expressions," "Rolled chords."

Author credits See "Composer credits."

Barlines See also "Final barline."

Use the Measure Attributes Tool ▣ to make changes in barlines.

TO DRAW THE BARLINE THROUGH SEVERAL STAVES

These instructions tell you how to create staff groups. Grouped staves have two characteristics: the barlines are drawn continuously through them and they can be connected by a bracket with the Bracket Tool ▣ .

Make sure you're in Scroll View before you begin. If you're not, choose Scroll View from the View menu.

• Click the New Staff Tool ▣ . A handle appears on each staff.

• Select the handles of the desired staves. You can select handles either by Shift-clicking, drag-enclosing, or by choosing Select All from the Edit menu.

• Double-click any selected handle. The selected staves are now *grouped.*

TO BREAK A BARLINE THAT IS DRAWN THROUGH STAVES

If staves have been grouped, as described above, the barline automatically continues through the space between them. You can break this barline without destroying the staff groups.

• Click the Staff Attributes Tool ▣ . A handle appears on every staff.

• Click the handle of the *lower* of two barline-connected staves. The Staff Attributes dialog box appears.

• Click Break Barlines. Click OK.

TO CREATE A DOUBLE BARLINE, FINAL BARLINE, OR OTHER BARLINE

• Click the Measure Attributes Tool ▣ . A handle appears at the end of measure.

• Double-click the handle of the target barline. If there are two stacked handles on each barline, double-click the top one. The Measure Attributes box appears.

• Select the desired barline types and click OK. The Measure Attributes box presents several options. Here are the barlines you can create by clicking each.

Barline: ☒ Solid Bar   ☒ Double Bar   ☒ Solid Bar
                                      ☒ Light Bar

Selecting *any* of these special barline options has a very important effect when you *extract parts*: the special barline will break a multimeasure rest (or "block rest") into two block rests, one on each side of it. (Such block rests *automatically* break for key and time changes, clef changes, and so on.) The Light Line is the only barline option that lets you force a break without changing the *appearance* of the standard barline—useful if, for example, you want to limit block rests to eight-bar sections.

TO HIDE ONE BARLINE

• Click the Measure Attributes Tool ▣ . A handle appears on each measure.

• Double-click the handle of the target barline. If there are two stacked handles on each barline, double-click the top one. The Measure Attributes box appears.

• Click No Bar. Click OK.

TO HIDE ALL BARLINES (NO-BARLINE MUSIC)

• Create the music "normally" (with barlines).

• Choose Options from the Special menu. The Options dialog box appears.

• Click Don't Draw Barlines. Click OK. Finale always works in measures, even if you're creating scores with no barlines. (To hide the meter in such a score, see "Hiding Time Signatures.")

TO MOVE A BARLINE

• Click the Measure Attributes Tool ▣ . A handle appears on each measure.

• Drag the handle of the desired barline horizontally. The measure (to the left of the barline) becomes wider or narrower.

If you move a barline in Page View, you don't just change the width of the measure whose barline you drag, you also increase or decrease the width of the measure *to its right*, making this a useful technique for touching up your page layout. (With this method, you can adjust all measures in a system *except the last one*.)

TO INSERT A FALSE BARLINE OR DOTTED BARLINE

These instructions assume you want to insert a false or dotted barline in the middle of an existing measure. If you want such a barline to *replace* an actual barline, hide the real barline as described in "To hide one barline," above.

• Click the Score Expression Tool ▣ .

• Click the measure to which the barline will be attached. The Score Expression Selection box appears.

• Proceeding through the dialog boxes, click as follows: Shape. Create. *Shape ID*. Create. Don't be daunted by the parade of dialog boxes. You end up in the Shape Designer.

• Click the Line Thickness Tool ▣ . Type 50, and click OK. You've just set the barline width to ½ point (50/100ths of a point).

• If you want a dotted barline, click the Dashed Line Tool ▣ , and OK the Set Dash Length dialog box. If you want, you can edit the dash lengths in this dialog box.

• Type –92 into the Y text box. Make sure zero is in the X: text box.

• Click the Line Tool ▣ . The barline now appears fully drawn. If you're drawing a dotted barline, it will appear at this point to be a solid line and won't appear to be perfectly vertical. If you print using a PostScript device, it will be dotted and perfectly vertical.

• Adjust the gray square handles so that the barline is enclosed in the bounding box.
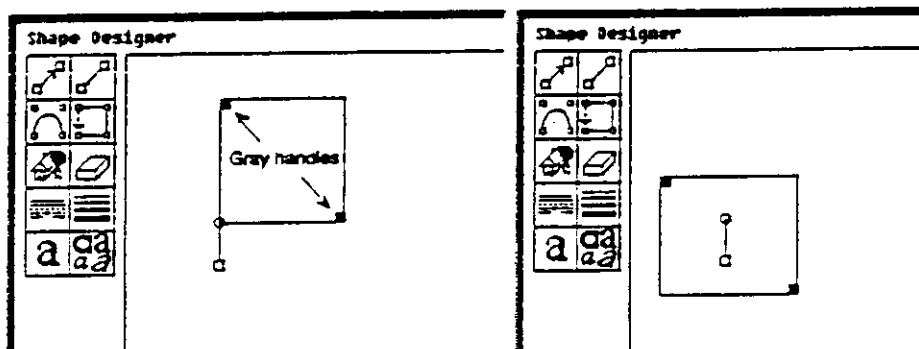
Once you've created a shape in the Shape Designer (above left), drag the gray handles so that the rectangle encloses it (above right). The purpose of this rectangle is to show you how your shape will appear in the selection palette when you're finished designing it.

• Click OK, then Select. Don't proceed all the way back to the score yet.

• Click Lock Shape and Use This Data. Lock Shape tells Finale that the Shape Expression you've just created should not be allowed to stretch horizontally along with the measures (when Finale widens measures slightly to make them flush with the page margins). Use

This Data prevents you from accidentally distorting the shape by dragging its handles once it's in the score.

• Click OK or Select in each dialog box to return to the score. The "barline" appears in every staff. Drag its handle to move it. Select its handle and press Delete to remove it. (If you want a false barline to appear in only one staff, repeat this process with the Staff Expression Tool ⊞ instead of the Score Expression Tool.)

TO SET THE THICKNESS OF LEDGER LINES, STAFF LINES, AND BARLINES

If you plan to use a PostScript device, you can define the thickness of the barlines. (Finale uses the same thickness measurement for ledger lines, staff lines, and barlines.)

• Choose Format from the Special menu. The Format Variables box appears.

• Click PS Variables. The PostScript Variables box appears.

• Enter a new value in the Def Line Width (float) box. The units are points, of which there are 72 per inch.

• Click OK, once in each dialog box.

Bars See also "Barlines," "Measures."

Bars per line See "Measures per line."

Bass clef The bass clef is number 3 in Finale's default clef-numbering scheme. Any clef change in Finale is fully intelligent, renotating the music as necessary without affecting playback. For information on creating new clefs and changing the default clef for new staves, see "Clefs."

TO SET A STAFF (OR CHANGE A STAFF) TO BASS CLEF

• Click the Clef Tool ⊞.

• Click the measure where you want the bass clef to begin. The Clef for Measure (#) dialog box appears. (If there's no music in the measure, Finale asks if you want to insert a "real" whole rest so that it can proceed with the clef change. Click OK.)

• Type 3 into the *Clef* box. Alternate method: click the *word* *Clef* and double-click the bass clef (rightmost icon, top row) in the palette that appears.

• If the new clef is to begin the measure, click OK. A box appears, asking you to specify the region to be affected. (At the end of this region, the clef currently in force will be restored.) Click the appropriate region description.

• If the new clef is to begin in the middle of the measure, click Go to Multiple. You return to the score with the clef—which now has a handle—at the beginning of the staff.

• Drag the clef's handle right, left, up, or down, positioning it as desired. The notes before and after it will be renotated automatically.

Beam angle The angles of the beams on eighth notes (and smaller values) can be set either globally or on a case-by-case basis. You can also specify *flat* beams (no angling), which you may prefer when printing on a non-PostScript printer (to avoid the jagged appearance of slanted beams).

TO CHANGE OR RESTORE THE ANGLE OF A BEAM

• Click the Special Tools Tool ⊞, and click the target measure. The Special Tools window appears.

• Click the Beam Angle Tool ⊞. A handle appears at the beginning and the end of the beam.

- Drag the right handle up or down to change the beam angle. Drag the left handle up or down to change the stem heights. To restore the beam to its default angle and height, click either handle and press Delete.
- Double-click the Control-menu box of the Special Tools window (upper left).

TO REMOVE ANGLE MODIFICATIONS FROM A SELECTED REGION

- Click the Mass Mover Tool ▣ , and select a region of measures. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or choose Select All from the Edit menu to select all measures in the score. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling.
- Choose Erase from the Mass Edit menu. Click Only the Selected Items, Entry Items, Only the Selected Items, and Stem and Beam Alterations. Click OK, once in each dialog box.

TO CHANGE THE ANGLE OF SECONDARY BEAMS

See "Beaming: Feathered beaming."

TO LIMIT THE STEEPNESS OF BEAMS

- Choose Parameters from the Special menu. The Parameters dialog box appears.
- Enter a new value in the Max Slope box. This number specifies the maximum vertical distance between the high and low ends of any beam, measured vertically in lines and spaces.
- Click OK.

TO ALLOW ONLY FLAT BEAMS

- Choose Options from the Special menu. The Options box appears.
- Click Draw Only Flat Beams. Click OK.

Beaming Beaming of eighth notes (and notes of smaller value) is automatic in Finale. You *can* override Finale's beaming decisions, either on a global, regional, or case-by-case basis.

TO BREAK (OR CREATE) A BEAM

- Click the Speedy Note Entry Tool ▣ and click the target measure. The editing frame appears.
- Use the arrow keys to position the insertion bar on the eighth note (or note of smaller value) at the *end* of the desired beam.
- Press the slash key (/). If the note was beamed to the previous note, the beam breaks. If the note wasn't beamed to the previous note, they're now beamed together. Press the slash key again to restore the beam to its previous form.

TO REBEAM A SELECTED REGION

- Click the Mass Mover Tool ▣ and select the desired region. To select the entire piece, choose Select All from the Edit menu.
- Choose Modify Entries from the Mass Edit menu. The Entry Modifications dialog box appears.
- Select Rebeam. The Time Signature dialog box appears.
- Click the Increase and Decrease buttons for the numerator and denominator until the window displays the desired beaming patterns. For example, if you want eighth notes in common time beamed in groups of four (rhythmic value equals a half note), adjust the display until it shows two half notes (two groups of four eighth notes). If you're in 6/8

and you want all six eighth notes beamed together in each measure, adjust the display until it shows a dotted half note (one group of six eighth notes). If you want an asymmetrical beaming pattern (such as three, three, and two eighth notes in common time), click the Special button for the numerator and enter the desired groupings into the text boxes.

TIME SIGNATURE DIALOG BOX   BEAMING PATTERNS

You specify the new beaming pattern for the selected music much as you would create a time signature. In the examples above, you can see the effect each "beaming signature" has on the eighth notes in the selected region.

If you set the *meter* with the Time Signature Tool ▣ in this way *before* you enter the music, Finale will *automatically* use it as the basis for its beaming patterns. If you change the meter *after* music has been entered, the beaming is unaffected.

• Click OK, once in each dialog box.

TO PREVENT FINALE FROM BEAMING AUTOMATICALLY (SPEEDY NOTE ENTRY)

Finale normally beams notes together according to the denominator of the time signature (quarter note groupings in 4/4, half note groupings in 3/2, and so on) when you're entering notes in step time using the Speedy Note Entry Tool. You can, if you wish, turn off this feature.

• Click the Speedy Note Entry Tool ▣ . The Speedy Options menu appears.

• Choose Check Beaming from the Speedy Options menu, so that the check mark no longer appears.

Beaming across barlines
In certain cases, you may want the beams on eighth notes (and smaller values) to extend across a barline to join a beam in the next measure. Finale gives you the tools to accomplish this, but you must create each beam extension individually, and align it visually with the beam in the next measure.

TO EXTEND A BEAM ACROSS A BARLINE

• Click the Special Tools Tool ▣ and click the target measure. The Special Tools window appears.

- Click the Beam Extension Tool ⊞ . Handles appear at each end of each beam.
- Click the handle at the end of the beam you want to extend. The Beam Extension box appears, asking which of the beams you want extended.
- Select the rhythmic values whose beams you want to extend, then click OK.
- Drag a handle horizontally to extend the beams. Drag anywhere in the window (except on a handle) in order to move the displayed music to the right or left. Since you can't see the music in adjacent measures, your alignment of the beam extension will have to be a trial-and-error process, accomplished by exiting and reentering the Special Tools window. It is entirely possible to use this method to extend beams *within* a measure (not necessarily across the barline). By *shortening* selected beams in this way, you can create certain kinds of tremolo notation (see "Tremolos").

  To restore an extended beam to its normal length, click its handle and press Delete. To reenter the Beam Extension dialog box (to specify which beams you want to extend), Shift-click an extended beam's handle.
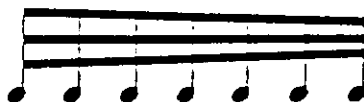
- Double-click the Control-menu box of the Special Tools window (upper left).

Beaming: Feathered beaming
If rhythmic values smaller than eighth notes are beamed together, the sixteenth-note (and smaller value) beams are called *secondary beams*. Finale provides considerable independent control for such beams.

In some modern music, for example, ritards and accelerandi are notated with converging secondary-beam angles in a technique called *feathered beaming*. In the case of the ritard, the player increases the rhythmic values gradually from the faster values, at the left end, to the slower values, on the right end, as shown above.

TO CREATE FEATHERED BEAMING
To create this form of notation, notate all values as the smallest values (in this case, 32nd notes). Then proceed as follows.

- Click the Special Tools Tool ⊞ , and click the target measure. The Special Tools window appears.
- Click the Secondary Beam Angle Tool ⊞ . Handles appear at both ends of secondary beams.
- Drag the handles so that the secondary beams converge with the primary beam. The left handle moves the entire beam up and down, without changing its angle. The right handle changes the angle. To remove any changes you make this way, click the appropriate handle and press Delete.
- Double-click the Control-menu box of the Special Tools window (upper left).

Beaming over rests
In normal circumstances, Finale doesn't include rests in beam groups. In triple meters (6/8, 9/8, etc.) you may prefer to have eighth note (and smaller value) beams join notes that straddle rests, as in this example:
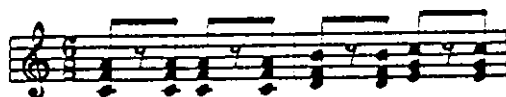
TO GLOBALLY BEAM OVER RESTS
- Choose Options from the Special menu. The Options dialog box appears.

• Select Include Rests in Beam Groups. Click OK. This is a global option, and will include all music that would normally be beamed according to the time signature (or any rebeaming you've done—see "Beaming—To rebeam a selected region").

TO BREAK INDIVIDUAL BEAMS OVER RESTS

If you find rests you *don't* want included in beamed groups, you can change beamed notes into flagged notes on a case-by-case basis. See "Beaming—To break (or create) a beam."

Beaming: Secondary beams
If rhythmic values smaller than eighth notes are beamed together, the sixteenth-note (and smaller value) beams are called *secondary beams*. Finale provides considerable independent control for such beams.

TO BREAK SECONDARY BEAMS

If you want, you can specify places to break secondary beams *even though the primary (eighth note) beam continues*.

• Click the Special Tools Tool 🖳 and click the target measure. The Special Tools window appears.

• Click the Secondary Beam Break Tool 🖳 . A handle appears over every note grouped by a secondary beam.

• Click the handle at the right end of the pair of notes whose beam you want to break. The Secondary Beam Break dialog box appears, letting you specify exactly which beams you want to break. If you select Break Only, you can specify individual levels of beams to be broken. Thus if you select Break Only 32nds, the sixteenth-note beam (and always the eighth note beam) will remain intact. If you select Break Through, Finale will break the beams of the note value you specify and all smaller values.

• Select the desired Break options, and click OK. To restore the beam grouping, click the handle you used to make modifications. When the dialog box appears, click Delete.

• Close the Special Tools window by double-clicking the Control-menu box (upper left).

TO CHANGE THE DISTANCE BETWEEN BEAMS

Finale lets you specify the amount of vertical space between the beams in sixteenth-note (or smaller value) beam groupings.

• Choose Parameters from the Special menu. The Parameters dialog box appears.

• Enter a new number in the Beam Sep. field. The units in this box are EVPUs, of which there are 288 per inch.

• Click OK. You can also change the separation between secondary beams on a case-by-case basis with the Secondary Beam Angle Tool 🖳 in the Special Tools Tool. See "Beaming: Feathered beaming."

TO CHANGE THE ANGLES OF SECONDARY BEAMS

See "Beaming: Feathered beaming."

Beam thickness
The thickness of the beams on eighth notes (and notes of smaller value) in Finale is determined globally by a setting in the Parameters box in the Special menu.

TO CHANGE THE THICKNESS OF BEAMS (NON-POSTSCRIPT PRINTERS AND SCREEN DISPLAY)

• Choose Parameters from the Special menu. The Parameters dialog box appears.

• Enter a new number in the Beam Depth field. The units in this box are EVPUs, of which there are 288 per inch.

• Click OK.

B BEAT POSITIONS

To change the thickness of beams (PostScript devices)

- Choose Format from the Special menu. The Format Variables dialog box appears.
- Click PS Variables. The PostScript Variables dialog box appears.
- Enter a new number in the Beam Depth (float) text box. This number specifies the thickness of beams in printouts from a PostScript device. The default is 3 points (there are 72 points per inch).
- Click OK twice. The change you've just made doesn't affect beam thickness in the screen display—only in PostScript printing.

Beat positions

The horizontal positions of the beats in the score are initially determined by the time signature. When you enter music into a new file, all measures are the same width, and the beats are equidistant in each measure. When you respace the music using an Allotment Library, the beats are repositioned according to *nonlinear spacing*—in other words, the positioning of beats in a measure that contains a half note and four eighth notes won't be the same as in a measure with four eighth notes and a half note—even though the measures are the same width.

Both Mass Mover Metatools 3 and 4 not only space your music evenly, but they also give each measure a *beat chart*, providing handles that you can drag horizontally to reposition the beats in a measure (in all staves).

To create a beat chart in one measure

Until a measure has a beat chart, you won't have control over the positions of the individual beats. If you apply Mass Mover Metatool 3 or 4 to a certain measure, you affect the spacing of the notes in it *and* provide a beat chart for it (see "Spacing"). The following method, adds a beat chart to the selected measures without changing the spacing of the music in them.

- Click the Measure Attributes Tool ▦ , and double-click the top handle at the end of the desired measure. The Measure Attributes dialog box appears.
- Click Use a Beat Positioning Chart. Click OK. To copy the *positioning mode* you've just established to other measures, click the Mass Mover Tool. From the Mass Mover menu, choose Move Only, then choose Measure Items, click Measure Positioning, and click OK in each dialog box to return to the score. Drag the measure you've already modified so that it's superimposed on the first target measure. Finale asks how many times you want to copy the positioning mode. Enter the appropriate number and click OK.

To move a beat

This process won't work unless the target measure has been configured to use a beat chart. To create a beat chart, apply Mass Mover Metatool 3 or 4 (see "Spacing") or see "To create a beat chart in one measure," above.

- Click the Measure Attributes Tool ▦ . Two stacked handles appear on each barline.
- Click the bottom barline handle of the target measure. The beat chart appears above the measure. The top row of handles indicates the positions of the beats according to the time signature (as they were *before* you respaced the music). By dragging a handle on the bottom row, you can reposition a beat in all staves at once.

← When you click the bottom barline handle...
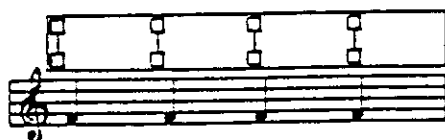
...a beat chart appears. The top row of handles indicates the positions of the beats as they'd fall with linear spacing, and the bottom row of handles allows you to move beat positions by dragging them.

• Drag the desired beat's handle horizontally. If you press Shift while dragging, all handles to the right of the dragged handle move in tandem. If you double-click between two top-row handles, a new handle appears. This governs the position of the beat halfway between the handles on either side.

If you double-click any top-row handle (except the first), the Beat Chart for Element (#) dialog box appears. This number (in EDUs, 1024 per quarter note) tells which beat's (or subdivision of a beat's) horizontal positioning is controlled by this handle. In other words, if the box displays 1024, then you can drag the *lower* handle of the pair to the left or right to reposition the occurrence of the *second quarter note* in all staves. This box can be extremely useful if, for example, you want to move the third note of a triplet slightly to one side (in all staves). By calculating the proper number to enter into the Elapsed Duration text box, you can specify the precise element of the triplet you want the handle to control. (In this example, if the eighth-note triplet begins on the first beat, you'd type 683 into the box, because that's two-thirds of 1024.)

• Click the screen outside the beat chart to hide it.

Beats See "Beat positions."

Bends See "Pitch wheel."

Bird's eye See "Fermatas."

Blank pages You can create blank pages anywhere in your file. These pages can then be used for dialogue (in an operetta or musical), discussion (in a textbook), or title pages, for example.

To ADD A BLANK PAGE AT THE END OF THE FILE

• Switch to Page View if Finale isn't there already.
• Click the Page Add/Remove Tool 🔲. The Add/Delete Page dialog box appears.
• Click Add.

To ADD A BLANK PAGE AT THE BEGINNING OR MIDDLE OF A FILE

• Click the Page Layout Tool 🔲. Finale switches to Page View, if it's not already there.
• Scroll to, and click, the page *before* you want the blank page. If you want a title page, click the first page. In any case, the Page Layout window appears.
• Click Blank Page. Finale pushes all the music from this page onto the next page (and so on for subsequent pages of music to the end, where it creates a new page to compensate). You can never lose music by clicking Blank Page.
• Choose Recalc Music from the Page Layout menu. Click OK.

Block rests See "Multimeasure rests."

Bowing Bowing marks for stringed instruments (upbow, V, and downbow, ⊓) are Note Expressions. If you've loaded a Note Expression library into your file, you don't have to create the symbol.

To PUT A BOWING MARK ON A NOTE

• Click the Note Expression Tool 🔲.
• Click on, above, or below the note. The Note Expression Selection box appears.

- If you see the mark in the Note Expression Selection box, double-click it. You return to the score, and the mark is attached to the note.
- If you don't see it, click Create. The Note Expression Definition dialog box appears.
- Type ALT0178 or ALT0179. These are the upbow and downbow marks, respectively.
- Click OK, then Select.

To move or delete a bowing mark

- Click the Note Expression Tool ⑤ .
- If the mark's handle isn't visible, click the note to which it was attached.
- Drag the handle to move the mark. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the mark and it still appears to be on the screen, choose Redraw Screen from the View menu.

To copy bowing marks (and other articulations)

See "Expressions: Note Expressions—To copy Note Expressions."

Brace (Piano brace) See also "Brackets: Staves."

A piano brace, or "curly brace," is a form of bracket in Finale. For information on inserting, moving, stretching, and deleting brackets (and braces), see "Brackets: Staves."

There are certain Finale parameters that apply solely to piano braces, however.

To change the screen display of piano braces

A piano brace is a graceful, curly brace. Finale can substitute a rudimentary, straight-line piano brace to speed up screen redraws if you wish. If you print with a PostScript device, Finale prints the full, elegant curly braces in their place. If you print with a non-PostScript printer, you will have to tell Finale specifically not to print the straight-line version.

- Choose Options from the Special menu. The Options dialog box appears.
- Click Faster Braces (so that the X disappears). Click OK. Now that Faster Braces is turned off, Finale draws a closer approximation of a true piano brace.

To change the shape of piano braces (PostScript devices)

Because Finale draws piano braces as PostScript Bezier curves, you can modify their shape to a certain extent.

- Choose Format from the Special menu. The Format Variables box appears.
- Click PS Variables. The PostScript Variables box appears.
- Enter new numbers in the Piano Brace 1 and Piano Brace 2 boxes. Finale creates a piano brace by drawing two sets of curves, then filling the space in between with black to produce a smoothly tapered brace. You can't modify the outer edge of the brace, but by changing the inner curves, you can make the brace thicker or thinner. The Piano Brace 1 variable controls the thickness of the brace at the tips, and Piano Brace 2 controls the maximum thickness of each "wing." (Technically, these two variables actually adjust the control points of the Bezier curves used to draw the brace.)
- Click OK, once in each dialog box.

Brackets: Notes This entry contains information on creating a bracket ([) used to indicate that several notes are to be played with the same hand (piano music) or by a *divisi* orchestral section (string music). For information on brackets that connect staves, see "Brackets: Staves." For information on triplet (and other tuplet) brackets, see "Tuplets."

A bracket that encloses a group of notes is created as a Staff Expression in the Shape Designer.

TO CREATE A NOTE BRACKET

- Click the Staff Expression Tool 🖫 and click the note to which the bracket will be attached. The Staff Expression Selection box appears.
- Proceeding through the dialog boxes, click as follows: Shape, Create, *Shape ID*, Create. You're now in the Shape Designer.
- Click the Line Thickness Tool 🖩. Enter 50 and click OK. You've just specified a half-point line thickness (there are 72 points per inch).
- Fill in the coordinate boxes as shown below, and click the specified tool after entering each pair.

X:	Y:	Tool:
24	0	Line Tool 🖫 then Return to Origin Tool 🖫
0	72	Line Tool 🖫
24	72	Line Tool 🖫

- Click OK, then Select. In the Shape Expression Designer dialog box, click Lock Shape. Click OK or Select in each dialog box to return to the score. The note bracket appears with a handle at each corner.

TO MOVE AND RESHAPE A NOTE BRACKET

- Click the Staff Expression Tool 🖫 and click the note to which the bracket was attached. Its handles appear.
- Drag the upper-left handle to stretch the bracket vertically. Drag the lower-left handle to move the entire bracket. Click any handle and press Delete to remove it. If you put more than one bracket into your score, be sure to place them using *Staff Expression Metatools* (see "Expressions: Staff Expressions—To create Note, Staff, or Score Expression Metatools"). If you don't, you'll discover that *every* bracket in the score changes shape when you edit any *one* of them.

Brackets: Repeat barlines See "Repeats (barlines and text indications)."

Brackets: Staves Use the Bracket Tool to place staff brackets (including "curly braces" on piano staves) into the score. In general, a bracket gets assigned only to *grouped* staves. But because you can drag both the top and the bottom handle of a bracket, you can stretch it to encompass non-grouped staves. By dragging their handles, you can create *nested* brackets (one bracket within another). You can also create "floating" brackets, unattached to any staves and placed anywhere in the score.

TO GROUP STAVES (NECESSARY BEFORE BRACKETING)

- Click the New Staff Tool 🖩. A handle appears on each staff.
- Select the staves to be grouped. Drag-enclose or Shift-click the handles to select them.
- Double-click any selected handle. The staves are now grouped.

TO PLACE A BRACKET ON GROUPED STAVES

- Click the Bracket Tool 🖫.
- Click any grouped staff. The Bracket dialog box appears.
- Click *Bracket ID*. A palette of the three available brackets—solid bar, bracket, and piano brace—appears.
- Double-click the desired bracket. Click OK.

TO MOVE OR STRETCH A BRACKET

- Click the Bracket Tool 🔲 . Handles appear on every bracket in the score.
- Drag the bottom handle up or down. Drag the top handle left, right, up, or down. When you drag the top handle horizontally, the entire bracket is moved. When you drag either handle vertically, its length is adjusted.

TO DELETE A BRACKET FROM A STAFF GROUP

- Click the Bracket Tool 🔲 . Handles appear on every bracket in the score.
- Click any bracket handle and press Delete.

TO CREATE ADDITIONAL (NESTED) BRACKETS

Create the first bracket in the usual way (see above). Then, to add an additional bracket:

- Click the Bracket Tool 🔲 . Handles appear on every bracket in the score.
- Click any grouped staff. The Bracket dialog box appears, displaying the latest bracket's number and position information.
- Click the Next button, and specify the new bracket. Click *Bracket ID* to choose the new bracket, or type its number into the text box.
- Click OK.

TO MODIFY BRACKETS ON A SYSTEM-BY-SYSTEM BASIS (OPTIMIZED)

There may be situations where you need the bracket configuration to *change* from one system to another. For example, suppose only the lower staff of a piano part appears in a certain system. You could use the following technique to remove the "curly brace" from it entirely, since there's no upper staff with which it's bracketed. The brace would still appear on all other systems, however.

Normally, the Bracket Tool is inoperative in Page View (where you'll make these modifications). But if you *optimize* the system (hide any empty staves), you'll find that you can use the New Staff Tool and Bracket Tool in Page View to rearrange and rebracket the staves in the system. For a full discussion of staff optimization, see "Optimizing staves."

- Click the Page Layout Tool 🔲 . Finale switches to Page View, if it's not already there.
- Click the page on which the system appears. You enter the Page Layout window.
- Click Staff Systems. You see a dotted-line representation of each system.
- Click the upper-left handle of the target system. Click Optimized. A dialog box appears, explaining the staff optimization process. You want to optimize the system *without* necessarily removing empty staves from it in the process (although you can certainly do so if you want).
- Click Yes. In the next dialog box, click Yes. Finale now presents a series of dialog boxes—one for each staff that contains only rests in this system. If you're only interested in rebracketing certain staves, click No in each of these dialog boxes. If you *do* want to remove a staff from the system, click Yes when necessary.
- Click OK to exit the Page Layout window.
- Regroup the staves in the optimized system. To group staves, click the New Staff Tool 🔲 , drag-enclose the desired staff handles, and double-click any selected handle.
- Click the Bracket Tool 🔲 . Add, adjust, or remove the brackets as necessary.

To CREATE "FLOATING" BRACKETS

A "floating" bracket is unattached to any particular staff. It can appear anywhere on the page. Finale considers such a bracket purely graphic, so you can use either the Score Expression or the Staff Expression Tool to place it.

- Click the Staff Expression Tool ▣ (to place the bracket in one staff) or the Score Expression Tool ▣ (to place it in several or all staves).
- Click on, above, or below the note (for Staff Expression) or measure (for Score Expression) to which you want to attach the bracket. The Staff Expression or Score Expression Selection box appears.
- Proceeding through the dialog boxes, click as follows: Shape, Create, *Bracket*, *Bracket ID*. The bracket selection palette appears.
- Double-click the desired bracket.
- Enter 144 in the Bottom Offset box. This number, in EVPUs (288 per inch), determines the initial length of the bracket. (If you don't type any number into this box, the bracket will have no length at all—it will be just a stub.) You can always adjust the bracket's length once it's in the score.
- Click OK or Select in each dialog box until the Expression Assignment box appears. If you're placing a Score Expression, you can click *Staff List* at this point to specify the staves in which you want this bracket to appear.
- Click OK. Stretch or move the bracket as needed (see "To move, stretch, or delete the floating bracket").

To MOVE, STRETCH, OR DELETE A FLOATING BRACKET

- To move or delete the bracket, click the tool (Staff Expression or Score Expression) you used to create it. Select the bracket's handle. Drag the handle to move the bracket, or press Delete to remove it from the score.
- To stretch the bracket, click the Bracket Tool ▣. Drag the bracket's handles vertically to stretch it.

Breath marks
A breath mark ('), or luftpause, appears in the score as a comma. In Finale, it's a Note Expression. If you've loaded a Note Expression library into your file, you don't have to create the symbol.

To PUT A BREATH MARK ON A NOTE

- Click the Note Expression Tool ▣.
- Click on, above, or below the note. (Even though a breath mark appears *between* notes, you have to click a note to place a Note Expression. Therefore, click the note just *before* the breath mark, and position the mark once it's in the score.) The Note Expression Selection box appears.
- If you see the breath mark in the selection box, double-click it. You will return to the score, and the mark will be attached to the note.
- If you don't see the breath mark, click Create. The Note Expression Definition dialog box appears.
- Type a comma (,). In the Petrucci music font, this is the breath mark.
- Click OK, then Select.

To MOVE OR DELETE A BREATH MARK

- Click the Note Expression Tool ▣.
- If the mark's handle isn't visible, click the note to which it was attached. If you can't remember which note you attached it to, you may have to click several notes. With each

wrong "guess," the Note Expression Selection box appears. Simply click Cancel. (If you make it a habit to attach the breath mark to the *previous* note, you'll always remember where to click in order to see its handle.)

- Drag the handle to move the symbol. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the mark and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO DEFINE A BREATH MARK FOR PLAYBACK

- Click the Note Expression Tool ⑤ . If you haven't yet placed the mark in the score, click a note just before you want a breath mark. When the palette appears, click the desired symbol and click Edit, then skip to the instruction marked by the coda sign.
- Click the note to which the mark was attached. A square handle appears on the breath mark.
- Double-click the handle. The Note Expression Definition box appears.
- Click the word Playback. The Playback Definition box appears.
- Click Time Based, Alter Duration, and Value is Fraction. In the Bottom Note fields, type 1 and 2. The values you're typing into these boxes will determine how much pause the mark should create (a feat Finale accomplishes by *shortening* the note to which the mark is attached, much like a staccato mark). By typing 1 and 2, you've specified that the note should sound for only *one-half* its notated value, and then take a "breath." (Of course, you can enter any fraction you want.)
- Click OK or Select in each dialog box to return to the score.

TO COPY BREATH MARKS (AND OTHER ARTICULATIONS)

See "Expressions: Note Expressions—To copy Note Expressions."

Breves See "Double whole notes."

Broken lines See "Dotted lines."

Cadenza   A cadenza—an unmeasured, free, often improvisational solo passage—presents several notational challenges. First, the notes are often smaller than usual. Second, there may be many more notes within a measure than the time signature would normally allow.

To reduce the size of notes
- Click the Reduce/Enlarge Tool ⬛ .
- Click *the staff* at the position of a note, but not on its notehead. The Reduce/Enlarge dialog box appears. If you clicked a notehead, you'd be reducing only that notehead. You clicked the staff in order to shrink the entire *entry group*—all notes, stems, flags, articulation marks, lyrics, and beams that are connected to the group of notes.
- Type 75. Click OK. You may find 75% reduction to be too large or too small. If so, experiment with other percentages.
- Repeat this process for the other notes in the measure.

To permit unlimited notes in one measure
- Click the Measure Attributes Tool ⬛ . A handle appears on each barline.
- Double-click the handle at the end of the cadenza measure. The Measure Attributes dialog box appears.
- Click Track Total Duration. A measure with Track Total Duration turned on will evenly space the notes you put into it, no matter how many.
- If you want to hide the ending barline (to continue the cadenza onto the next line), click No Bar.
- Click OK. Be sure that Clip to Measure is unchecked in the SpeedOptions menu and enter the music into the modified measure with the Speedy Note Entry Tool ⬛ . Use the slash (/) key to break or create beams within the cadenza. When you exit the measure, the "There are too many beats..." alert box appears. Click "Leave them alone".

Cautionary accidentals   See "Courtesy Accidentals."

Cesura   The cesura (//), also called a full stop, double stroke, or railroad track, is a Note Expression. If you've loaded a Note Expression library into your file, or if DEFAULT.MUS is in place, you don't have to create the symbol.

To put a cesura into the score
- Click the Note Expression Tool ⬛ .
- Click on, above, or below the note. (For best results, click the note just *before* the cesura, and position the mark after you've placed it in the score.) The Note Expression Selection box appears.
- If you see the cesura in the Note Expression Selection box, double-click it. You return to the score, and the mark is attached to the note.
- If you don't see it, click Create. The Note Expression Definition dialog box appears.
- Type Shift-apostrophe ('). In the Petrucci music font, Shift-apostrophe corresponds to the cesura mark.
- Click OK, then Select. To create extra space after the note to which the cesura is attached, use a beat chart, and spread the appropriate handles to make extra room (see "Beat positions").

To move or delete a cesura
- Click the Note Expression Tool ⬛ .

- If the mark's handle isn't visible, click the note to which it was attached. If you can't remember which note you attached it to, you may have to click several notes. With each wrong "guess," the Note Expression Selection box appears. Simply click Cancel. (If you make it a habit to attach the cesura to the *previous* note, you'll always remember where to click in order to see its handle.)

- Drag the handle to move the symbol. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the mark and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO COPY CESURAS (AND OTHER ARTICULATIONS)

See "Expressions: Note Expressions—To copy Note Expressions."

Character names

Character names (opera, musical theater) are Text Expressions entered into your score as Staff Expressions. Once you've created these markings, you can save them into a Text Expression Library so that you can use them in other files.

TO PLACE A CHARACTER NAME INTO THE SCORE

- Click the Staff Expression Tool 🔳.
- Click on, above, or below the note to which you want to attach the name. The Staff Expression Selection box appears.
- If you've previously created the character name, double-click it. Click OK. The new Text Expression appears in the score, where you can adjust its position (see below).
- If the name doesn't appear in the Staff Expression Selection box, click Create. The Text Expression Designer appears.
- Type the character name. Click Set Font to change the type style, and click OK.
- Click OK or Select in each dialog box to return to the score.

TO MOVE OR DELETE THE CHARACTER NAME

- Click the Staff Expression Tool 🔳.
- Click the note to which the name was attached. Its handle appears.
- Drag the handle to move the name. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it.

Choirs (Instrument choirs) See "Staff groups."

Choral music See also "Hymns," "Lyrics."

There are no specific instructions for working with choral scores—only a few tips.

Work from a template (a blank, preformatted file)—either CHOR-PNO.MUS (in your TEMPLS directory) or one of your own design. This way, you'll save yourself the trouble of reconstructing the system each time you create a new file with the same format.

If the choir sings a section of *homophonic* music—where all voices sing the same rhythms and same words—use the Clone Lyrics command in the Lyrics menu to copy lyrics from one line to another. This way, if you need to change a lyric, you only have to edit it once (in a single Mass Create window) and the change will ripple through all vocal parts.

Remember Finale's Implode Music command if you want to create a piano reduction. (See "Piano reductions.")

Chords See also "Chord symbols."

This entry discusses chords as several notes played together. For information on chord *symbols*, see "Chord symbols."

To edit chords in the score, you can use either of Finale's editing tools—the Simple Note Entry Tool or the Speedy Note Entry Tool. Use the Special Tools Tool if you want to rearrange the notes of a cluster chord.

To add notes to (or remove notes from) a chord

* Click the Speedy Note Entry Tool 🔲 , and click the target measure.
* Position the insertion bar on the existing note or chord. Position the crossbar on the desired pitch. You can position the cursors either by clicking or by using the arrow keys.
* Press Enter or double-click (to add a note where none exists), or press Backspace (to remove the note from the chord).

To change the pitch of a chord

* Click the Speedy Note Entry Tool 🔲 , and click the target measure.
* To change the pitch of a single note within the chord, drag it up or down.
* To change the pitch of the entire chord, double-click one of its notes. On the second click, *hold the button down* and drag the entire chord up or down.

To change the enharmonic spelling of a chord

* Click the Speedy Note Entry Tool 🔲 , and click the target measure.
* Position the insertion bar on the chord. You can position it either by clicking or by using the arrow keys.
* Position the crossbar on the note (to change a single pitch) or the stem (to change the "spelling" of the entire chord).
* Press the 9 key. Each time you press 9, the note or chord changes its enharmonic spelling.

To rearrange the noteheads of a cluster chord

* Click the Special Tools Tool 🔲 and click the target measure. The Special Tools window appears.
* Click the Notehead Tool 🔲 . A handle appears on every notehead.
* Drag the noteheads horizontally. If the handles are in your way, click to uncheck Boxes. The handles become invisible (but the notes are still draggable).

Chord symbols Finale's chord symbols are intelligent with respect to key. If you decide to change key, the chord symbols are automatically transposed. Similarly, if you copy chord symbols to a passage in another key, they'll be transposed when you paste them in.

If you're going to add chord symbols to your score, you should prepare in two ways. First, load (or build) a Chord Suffix Library (unless you're working from the DEFAULT.MUS). Second, choose a font for the chord *letter names*. (The font for the *suffixes* is Helvetica by default. You can either change each suffix, character by character, as described below in "To Edit a Chord Suffix," or change the font for all suffixes at once, as described in "Fonts—To change every occurrence of one font to another.")

Finale labels chords according to the standard rules of chord theory and "recognizes" almost any kind of chord it encounters—major, minor, augmented, diminished, suspended, sevenths, ninths, elevenths, and so on, even with alternate bass notes.

To ENTER CHORD SYMBOLS AUTOMATICALLY

Using any of the three methods described here, you may occasionally encounter a dialog box telling you that Finale doesn't recognize the chord you just played (or the chord it just analyzed). If you click "I'll do it," Finale displays the Chord Definition dialog box. Construct the chord as described in "To enter chord symbols manually by typing numbers," below.

If you click "Let Finale do it" instead, Finale will construct the correct suffix automatically, displaying the chord symbol on the screen and adding its suffix to its current library of chord suffixes. If you don't care for Finale's *labeling* of a chord (for example, Gm7 when you prefer G–7), you can edit the chord suffix (see "To edit a chord suffix," below).

If you disagree with Finale's *analysis* of a chord (for example, Am7/C when you prefer C6), remove the chord symbol from the score (see "To move and delete chord symbols," below) and reenter the chord manually (see "To enter a chord symbol manually by typing numbers," below).

- Click the Chord Tool 🄲 .
- CTRL-click the note or rest on which the chord symbol is to be centered. The Chord Analysis dialog box appears. (You can't add a chord symbol to an empty [default whole rest] measure.)
- If you want to play the chords one by one from a MIDI keyboard, click OK. Play a chord, in any register, on your synthesizer. Finale places the chord symbol into the score, aligned with the baseline (controlled by the four triangles at the left side of the screen). If you play the chord in anything but root position, Finale writes it as a chord-slash-bass note, as in Am/E. To advance the ear cursor to the next note position, play any single key above middle C. To move the ear cursor backward to the previous note position, play any single key below middle C.
- If you want Finale to analyze the music on the staff you clicked, select Look at One Staff (Near-Sighted Eye). Click OK. Finale immediately analyzes the chord at the spot you CTRL-clicked, and places the chord symbol into the score. CTRL-click each chord for which you want a chord symbol to appear.
- If you want Finale to analyze the music on the staff you clicked plus the one just below it, select Look at Two Staves (Far-Sighted Eye). Click OK. Finale analyzes all the notes in both staves, and places a chord symbol into the score. CTRL-click each chord for which you want a chord symbol to appear.

To ENTER A CHORD SYMBOL MANUALLY BY TYPING NUMBERS

- Click the Chord Tool 🄲 .
- Click the note or rest on which the chord symbol is to be centered. (If you're using the Voice 1/Voice 2 mechanism and want the chord symbol attached to a Voice 2 note, Shift-click instead.) The Chord Definition box appears.
- Enter the root scale tone. If there's a different bass note, click Alternate Bass and enter its scale tone in the Alternate Bass text box. *Subtract 1 from the scale degree numbers you type here.* The Chord Definition box thinks of these numbers as the *distance* (in diatonic steps) from the first note of the scale, whose number is *zero*. For F/G in the key of C, then, the Root Scale Tone (F) is 3, and the Alternate Bass is 4.

If you need to alter the scale degree chromatically, type a number into the Alteration boxes. This number, positive or negative, alters the scale tone by half steps. For example, to create an Ab chord in the key of F, the Root Scale Tone is 2 (two steps above the first note of the scale) and the Alteration is –1. To create an "accidentalized" chord symbol where diatonic half steps occur requires a double alteration. For example, to create a Fb chord in the key of C, the Root Scale Tone is 4 (four steps above the first note of the scale) and the Alteration is –3.

- Click *Chord Suffix ID*. The Chord Suffix Selection box appears. If you have loaded or created a Chord Suffix Library, the suffixes appear here.
- Double-click the desired suffix. If you don't want the chord symbol to play back, click Don't Play so that it's no longer selected. Don't Play Root and Don't Play Bass control other aspects of the playback of the chord symbol.
- Click OK.

To ENTER A CHORD SYMBOL MANUALLY WITH MIDI DATA INPUT

Instead of creating a chord symbol by typing numbers and clicking a chord suffix, you can play this data from your MIDI keyboard.

- Click the Chord Tool 🔲.
- Click the note or rest on which the chord symbol is to be centered. The Chord Definition box appears.
- Click Listen to MIDI *Root*. Play the root scale tone on your synthesizer. Finale automatically fills in the Root Scale Tone box for you.
- Click *Root*. The word changes to *Bass*.
- Click Listen to MIDI *Bass*. Play the bass note on your synthesizer. If the bass note is different from the root, Finale fills in the Alternate Bass box for you.
- Click *Bass*. The word changes to *Suffix*.
- Click Listen to MIDI *Suffix*. Play the rest of the chord on your synthesizer. Finale will only fill in the Suffix ID if it *recognizes* the suffix—in other words, if it matches a suffix definition in its Chord Suffix Library. (If no library has been loaded, or if Finale doesn't find a match, nothing happens.) If you don't want the chord symbol to play back, click Don't Play (so that it's no longer selected). Don't Play Root and Don't Play Bass control other aspects of the playback of the chord symbols.
- Click OK.

To EDIT A CHORD SUFFIX

When you edit a chord suffix, the changes you make affect *every occurrence* of this chord suffix in the score. If you're already in the Chord Definition dialog box, skip to the instruction marked by the coda sign.

- Click the Chord Tool 🔲.
- Click the note to which the chord is attached. Its handle appears.
- Double-click the handle. The Chord Definition box appears.
- Click *Chord Suffix ID*. The Chord Suffix Editor appears. In this window, you edit each character in the chord suffix individually, moving from one to the next with the Prev and Next buttons.
- Change a character in the suffix by editing the *Symbol* box. You can type only one letter at a time into this text box, unless you select Number, which lets you type a multi-digit number into the box. Instead of typing a character into the *Symbol* box, you can click the word *Symbol*, to see the complete palette of characters for the selected font.
  You can prefix any number or letter in the suffix with a +, -, ♭ or ♯ character. Click Prefix With and select the appropriate button.
- Change the font, size, or style of the current character by clicking Set Font. Remember, you must set the font for each character individually. Be careful to match this chord *suffix* font with a complementary chord *root* font (which you choose from the Font Selection command in the Special menu).
- Adjust the position of a character by dragging its handle. A handle appears only on the character you are editing (move between characters with the Prev and Next buttons). Alternate method: type coordinates into the X (how far to the right) and Y (how high up) boxes in EVPUs, (288 per inch). The numbers you type won't affect the display until you click Update.

If you're having trouble positioning a character because the square handle obscures it, click No Boxes. The handles disappear but are still draggable—just click where the handle used to be.

- Define the voicing this suffix is to use for playback by clicking Set Play. The Suffix Keynumber Offset box appears, presenting a series of text boxes into which you can type the numbers that represent the notes of the suffix, as measured in half steps from the root. A quicker way to enter this data is to click Listen to MIDI. Finale displays a message asking you to play the root of the chord, so it will have a point of reference from which to compute the *keynumber offsets*. You return to the dialog box, where the Listen to MIDI box is still selected. Now play the suffix itself. Finale enters the appropriate numbers in the text boxes and removes the X from the check box.

Remember that even though you just played a *specific* root and voicing, this suffix will remember the voicing no matter what its root.

TO MOVE AND DELETE CHORD SYMBOLS

- Click the Chord Tool 🎼 .
- Click the staff containing the chord symbols. Four small arrows appear at the left edge of the screen. These arrows control the *baseline* for the chord symbols—the line against which the bottoms of the chord symbols align.
- If you want to move more than one chord symbol, drag the positioning arrows up or down. Drag the *first* (leftmost) arrow up or down to move *all the chords in the piece*. Drag the *second* arrow to move the chords *in this staff only*, regardless of the position of the leftmost arrow. Drag the *third* arrow, in Page View, to move the chords in this staff *in this system only*. Drag the rightmost arrow to set the position for the *next* chord symbol you enter—this doesn't move *existing* chord symbols.
- If you want to move a single chord symbol, click the note to which it's attached. The chord's handle appears.
- Drag the handle to move the chord. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it.

TO ENTER A CHORD SYMBOL WHEN THERE'S NO NOTE BELOW IT

Thus far, you've seen that chord symbols may be attached to a note or rest (except for Finale's default whole rests). However, there may be times when you want to put a chord symbol over a place where no note appears.

Suppose that you want to put four chord symbols in a measure with only one melody note—a whole note. The solution is to enter all four chords in a row (if you're entering chords automatically from the MIDI keyboard, play the four chords in a row *without* playing a single note above middle C to advance the cursor). The subsequent chords appear directly above the first one. When you're finished entering chords, drag their handles to move them into position.

If you need to widen the measure to make room, click the Measure Attributes Tool 🔳 , and drag the ending barline's handle to the right.

To create several chord changes in a measure with only one note, first attach all the chord symbols to the same note (left). Then drag each into place by its handle (right).

To ENTER A CHORD SYMBOL OVER A WHOLE REST

Finale will only permit a chord symbol over an *entry* (a note or rest). However, the default whole rest that appears in any empty measure is a "placeholder" rest created by Finale. To attach a chord symbol to an empty measure, you first have to create a "real" whole rest.

- Click the Speedy Note Entry Tool ▣, and click the empty measure. The editing frame appears.
- Press the 7 key. If Use MIDI Keyboard has a check mark beside it (in the SpeedOptions menu), you'll see a "real" whole rest appear. (If you have turned off Use MIDI Keyboard, a whole note appears. Click it and press Backspace to convert it to a "real" whole rest.)
- Click the Chord Tool ▣ . You can now attach a chord to the whole rest. Keep in mind that the chord will be centered on the rest, which itself is always centered in the measure. If you want the chord symbol to appear at the beginning of the measure, you'll have to drag it into place as described above.

To ERASE CHORDS FROM A REGION

- Click the Mass Mover Tool ▣.
- Select the desired region. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or choose Select All from the Edit menu to select the entire file. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling.
  In any case, the Mass Edit menu appears.
- Choose Erase from the Mass Edit menu. The Items to Erase box appears.
- Proceeding through the dialog boxes, click as follows: Only the Selected Items, Entries, Only the Selected Items, Chords.
- Click OK or Select in each dialog box to return to the score.

To COPY CHORDS FROM ONE REGION TO ANOTHER

In this discussion, the "source measures" are those that currently contain the chords, and the "target measures" are those to which you want to copy them.

- Click the Mass Mover Tool ▣ .
- Choose Move Only from the Mass Mover menu.
- Choose Entry Items from the Mass Mover menu. The Entry Items dialog box appears.
- Click Chords to select it, and click OK.
- Select the source measures. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, or click to the left of the staff to select the entire staff. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling.
- Drag the first source measure so that it's superimposed on the first target measure. If the first target measure is off-screen, scroll to it. Then, while pressing CTRL and Shift simultaneously, click it. In either case, the "How many times" box appears.
- Specify the number of times you want the chords copied, and click OK. Finale only places chords on notes that fall on the *same beats* as they did in the source measures. The chords will automatically transpose if the source and target measures are in different keys.

TO PREVENT CHORD SYMBOLS FROM PLAYING BACK

When you create a chord symbol, Don't Play is not selected in the Definition window—in other words, the chord will play back unless you specify otherwise. Unchecking Don't Play for each chord symbol would be one way to prevent the chords from playing, but it's a technique best used on a case-by-case basis. To prevent *all* chord symbols from playing back, use the following technique.

- Click the Staff Attributes Tool ⊞ . A handle appears on every staff.
- Click the handle of the staff whose chords you want to prevent from playing back. The Staff Attributes dialog box appears.
- Click Set Output. The Output Routes box appears.
- Type an Output Route number and a MIDI channel number to which no synthesizer is "tuned." The chord symbols will be broadcast to an unused channel. For example, if you are using only one MIDI interface, any channel number between 17 and 32 is considered "unused." (If you don't know the function of Output Routes, don't worry. In general, you'll be safe if you type the same number into both boxes.)
- Click OK.

TO PROGRAM A CHORD SYMBOL METATOOL

You can assign a complete chord symbol to each of the number keys 1 through 8 on your computer keyboard, for use as described below in "To enter a chord using a Metatool."

- Click the Chord Tool ⊞ .
- While pressing CTRL, press a number key (1 through 8). The Chord Definition box appears.
- Define the chord. See "To enter chord symbols manually" (above) for full instructions on creating chord symbols.
- Click OK. It will appear as though nothing has happened but you have prepared Finale to enter the chord you just defined whenever you use the Metatool (see below).

TO ENTER A CHORD USING A METATOOL

This example assumes that you have programmed a Chord Symbol Metatool (see above).

- Click the Chord Tool ⊞ .
- While pressing the number key (1 through 8) corresponding to the desired Metatool, click a note or rest. The chord symbol appears.

TO CREATE OR LOAD A CHORD SUFFIX LIBRARY

Once you've created or edited chord suffixes in a file, you can save them in a separate library with its own filename. The next time you want to add chord symbols to a piece, you can load this library, thus saving yourself the time it would take to create or edit the chord symbols again.

- To make a Chord Suffix Library of the chord suffixes and learned chords in a piece, choose Make Library from the File menu. The Make Library from Current Piece dialog box appears.
- Click Chord Suffixes, then click Make. You're then asked to name the new library.
- Type in a new filename and click Make. The next time you want to add those chord symbols to a piece, simply load the library you just created (choose Load Library from the File menu) and enter chord symbols in the usual way.

Clefs The clefs in Finale are intelligent: If you change a clef, the music that follows reflects the change.

TO SET THE STARTING CLEF FOR A STAFF

Set the starting clef for a staff when you are setting up other attributes for a staff.

- Click the Staff Attributes Tool 🔤 . A handle appears on each staff.
- Click the handle of the desired staff. The Staff Attributes box appears.
- Click *Starting Clef*. The palette of eight clefs appears.
- Double-click the desired clef. Each of Finale's clefs has a number, 0 through 7. Finale displays the number of the clef you selected in the *Starting Clef* text box. If you know the number of the desired clef, you can bypass the clef selection palette by typing the number directly into the *Starting Clef* text box.
- Click OK.

TO INSERT A CLEF CHANGE

- Click the Clef Tool 🔢 .
- Click the measure where you want the clef to change. The Clef for Measure (#) dialog box appears. (If there's no music in the measure, Finale asks if you want to insert a "real" whole rest so that it can proceed with the clef change. Click OK.)
- Click the word *Clef* and double-click the desired clef in the palette that appears.
- If the new clef is to begin the measure, click OK. A box appears, asking you to specify the region to be affected. (At the end of the region you specify, the clef currently in force will be restored.) Click the appropriate region description.
- If the new clef is to begin in the middle of the measure, click Go to Multiple. You return to the score with the clef—which now has a handle—at the beginning of the staff. Drag the clef's handle right, left, up, or down, positioning it as desired. The notes before and after it will be renotated automatically.

TO CHANGE A CLEF YOU'VE INSERTED IN MID-MEASURE

- Click the Clef Tool 🔢 .
- Click the measure where the clef change occurs. The clef's handle appears.
- Double-click the handle. On the second click, *hold the button down* and drag left or right. As you drag the clef, its identity cycles through the eight standard clefs. Another way to edit the clef is to CTRL-click its handle. You reenter the Multiple Clef dialog box, where you change the clef itself, its size, or its position.

TO CHANGE THE DEFAULT CLEF

When you add a staff to the score, it initially appears with a treble clef. You can change this default clef so that any new staff appears with another clef.

- Choose Parameters from the Special menu. The Parameters dialog box appears.
- Click *Default Clef*. A palette of clefs appears.
- Double-click the desired default clef. Click OK. Now any new staff you create with the New Staff Tool will initially appear with the default clef you specified.

TO DESIGN A NEW CLEF

You're not limited to using the traditional clefs in Finale. You can create your own clef, using any symbol, with any notational meaning. Each file you create can have eight clefs. To create your own, you'll have to replace one of the eight default clefs.

- Choose Clef Designer from the Special menu. The Clef Designer dialog box appears.

- Click Next or Prev until the clef whose characteristics you want to alter is displayed. You can tell which of the "standard" clefs you're viewing by clicking *Symbol*. The highlighted clef in the palette that appears is the current one. You may also be able to recognize the clef by number. Clefs always appear in the palette numbered like this:

Clef number:

0	1	2	3
Treble	Alto	Tenor	Bass

4	5	6	7
Percussion	Treble 8vb	Bass 8vb	Baritone (F)
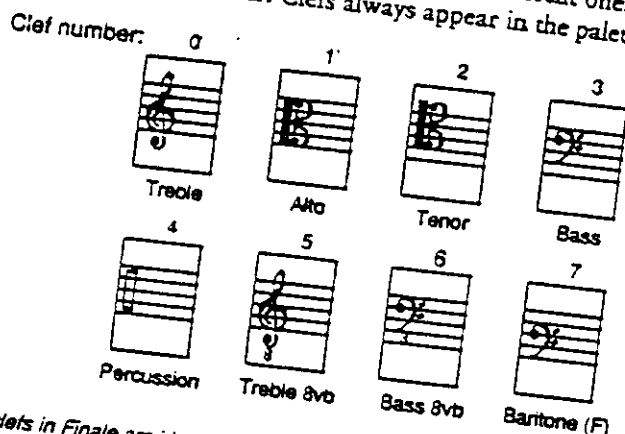
The clefs in Finale are identified by number (0 through 7).

- Click *Symbol*. A palette of all available characters in the currently selected font appears. To change the font for all clefs, click Cancel (to return to the previous dialog box) and click Set Font. Then repeat this step.

- Double-click the desired symbol.

- Set the middle C line for this clef by typing a number into the Clef Adjustment box. A value of zero places middle C on the *top line* of the staff. The number in this box indicates the number of lines or spaces away from this top line middle C is to be. For example, the treble clef, which places middle C one ledger line below the staff, has a Clef Adjustment value of –10, because one ledger line below the staff is *ten* lines and spaces *down* from the top line of the staff.

- Set the "stem flipper" line by typing a number into the Middle Line box. The Middle Line value is usually the middle line of the staff. It sets the line or space that will be the dividing line between stems-up and stems-down notes (and the determinant of tie directions). This value, measured in lines and spaces, is measured from middle C. For example, the treble clef's "stem flipper" is the middle-of-staff B line. Therefore, its Middle Line value is 6 (a positive value), because the B line is six lines and spaces *above* middle C.

- Set the vertical positioning of the clef symbol by typing a number into the Y Offset box. The Y Offset value, measured in lines and spaces, determines where the new clef will sit on the staff. A value of zero places the *baseline* of the clef on the *top line* of the staff. The baseline of a clef isn't quite the same as the baseline for regular text. The baseline of a clef is based on its musical meaning. For example, the baseline of the treble clef isn't the bottom of the character—it's the "curl" that sits on the G line of the staff. The baseline of the bass clef is centered between the two dots (the F line), and so on. Thus the Y Offset for the treble clef is –6, six lines and spaces *lower* than the top line of the staff.

- If you're using a font other than Petrucci, click Use Aux and type a value into the Aux Y Offset. This number sets the distance, in lines and spaces, between the normal baseline for the clef (as defined in the previous step) and its vertical position (Y Offset) when it occurs as a clef *change* in the middle of the score, and hence at a reduced size. Finale positions clefs automatically if the Petrucci music font is selected as the default music font, but symbols from a font you design yourself might require this extra adjustment. If the Sonata font is your default music font, Finale also makes these adjustments automatically. But if you're using Sonata as the font only for your clefs, click Use Aux.

• Click OK. From now on, any time you access the palette of clefs (either in the Staff Attributes box or within the Clef Tool), you'll see the new clef represented as one of the eight available. Any music that follows it will be notated according to the definition of middle C (and the "stem-flipper" value) you've created.

TO CHANGE THE GLOBAL HORIZONTAL POSITIONING OF STARTING CLEFS

• Choose Format from the Special menu. The Format Variables dialog box appears.

• Enter new values in the Separations/Clef boxes. There are two text boxes next to the word Clef, both of which affect the *horizontal* placement of clefs throughout the piece. The left box determines how much space, in EVPUs (288 per inch), Finale will insert between the left barline and the clef itself. The right box determines how much space, in EVPUs, Finale will insert between the clef and the key signature. (To change the global *vertical* positioning of clefs, see "To design a new clef," above.)

• Click OK.

TO GLOBALLY CHANGE THE POSITION AND SIZE OF INSERTED CLEFS

When the clef for a staff changes in mid-score, it's customary to print that *inserted clef* at a slightly reduced size. Depending on the symbol and font you're using, you may also need to adjust the reduced clef's horizontal position (distance from the barline) on the staff. The *vertical* position of such a clef is determined in the Clef Designer (see "To design a new clef," above). Here's how to modify the percentage reduction and position of an inserted clef.

• Choose Parameters from the Special menu. The Parameters dialog box appears.

• Enter a new percentage value in the Measure Clef Change/Percent box. The number here is the percentage reduction (or enlargement) you want applied to an inserted clef.

• To adjust the horizontal placement of an inserted clef, enter a new value in the Measure Clef Change/Offset box. This number, measured in EVPUs (288 per inch), determines the distance between the clef and the following barline or notes. A negative number moves the clef farther to the left.

• Click OK.

TO SPECIFY THE LOCATION OF KEY SIGNATURE ACCIDENTALS IN A NONSTANDARD CLEF

If you create your own clef, you can specify which line or space each accidental appears on as you cycle through the circle of fifths. For example, on *which* F♯ line or space should the first sharp appear (in the key of G)? To specify this technical parameter, see "Accidental Octave Placement for Clefs dialog box" in *Finale Reference*.

Click track See "Metronome."

Closed symbols The closed symbol (+), commonly used in percussion and brass parts, is a Note Expression. If you've loaded a Note Expression library into your file, you don't have to create the symbol.

TO PUT A CLOSED SYMBOL (+) ON A NOTE

• Click the Note Expression Tool ⑤.

• Click on, above, or below the note. The Note Expression Selection box appears.

• If you see the symbol in the Note Expression Selection box, double-click it. You return to the score, and the mark is attached to the note.

• If you don't see it in the Note Expression Selection box, click Create. The Note Expression Definition dialog box appears.

- Type Shift–equal sign (=). In the Petrucci music font, the Shift–equal sign corresponds to the closed symbol.
- Click OK, then Select.

TO MOVE OR DELETE A CLOSED SYMBOL

- Click the Note Expression Tool 🔲.
- If the symbol's handle isn't visible, click the note to which it was attached.
- Drag the handle to move the symbol. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it.

Coda See also "D.S."

In Finale, the coda (✦) is a form of repeat sign known as a *text repeat*, meaning that it functions the way a repeat barline would (but requires no repeat barline). If you have no need for *functional* coda markings (that affect playback), see "To place the coda sign in the score," below.

To be the most helpful to the musician, a score with a coda usually displays two markings: the coda sign itself (✦) and the "To Coda" indication. You can create both of these with the Repeat Tool. When Finale encounters the "To Coda" marking, it automatically directs the playback of your score to the measure displaying the ✦ sign—even if you later decide to move it to a different measure.

TO PLACE THE CODA SIGN IN THE SCORE

- Click the Repeat Tool 🔲.
- Click the measure in which you want the coda sign to appear. The Repeat Selection box appears. If you've loaded a Text Repeat Library—or if DEFAULT.MUS is in place—you should see the ✦ sign. Double-click it and skip the next three steps.
- Click Create. The Repeat Designer appears.
- Type ALT0222. Click Set Font, and set the font to Petrucci 24 point. Click OK. In the Repeat Text box the mark still appears in the System font. But in the score, the mark will be a true coda sign.
- Click OK, then Select. Now you arrive at the Repeat Assignment dialog box. Here's an important step:
- Note the Repeat number of the ✦ mark. At the top of the dialog box, you should see an indicator that says "Repeat: 1" (or whatever number Finale has assigned to your coda sign). You'll need to remember this number.
- Click Mark. You've just defined this text repeat to be a *mark*—in other words, a marker to which *other* text repeats (such as "To Coda") will direct playback.
- Click OK. The coda sign appears in all staves. (To hide the marking in a certain staff, click the Staff Attributes Tool, then click the desired staff's handle. In the Dont Draw section of the dialog box that appears, click Endings and Text Repeats. Click OK.)

TO MOVE OR DELETE THE CODA SIGN

- Click the Repeat Tool 🔲.
- If the marking doesn't already display a handle, click the measure to which it's attached.
- Drag the handle to move the sign. Select it and press Delete to remove it. In terms of its playback functions, the coda sign is still associated with the measure you originally placed it in, even if you drag it to a different measure.

TO PLACE A FUNCTIONAL "TO CODA ⊕" MARKING

If you follow these steps, you'll create a *functional* text repeat that actually directs the playback of your score to the measure containing the coda sign.

• Click the Repeat Tool ▤ .

• Click the *last* measure to be played before jumping to the coda. The Repeat Selection box appears. If the "To coda" mark already appears in the window, skip the next three steps.

• Click Create and type *To Coda #*. You create the number sign (#) by pressing Shift-3. Set the font and style by clicking the Set Font button.

• Click Replace Number Sign with Repeat Mark in Target. In other words, when your "To Coda #" indication appears in the score, you want the number sign (#) to be replaced by the repeat mark itself—in this case, the ⊕ sign ("To Coda ⊕").

• Click OK. The "To Coda #" mark now appears in the list of Text Repeats.

• Double-click the "To Coda #" mark. The Repeat Assignment box appears.

• Click Jump on Total Passes and enter a number in the Total Passes box. Enter into the Total Passes box on which repetition of this music the playback should jump to the coda sign. If this is a standard D.S. al Coda, in which the music up to the "To Coda" mark is played a total of two times, you'd type 2 into the Total Passes box.

• Click Jumper. Below the word Target, click Repeat. You selected Jumper because the words "To Coda ⊕" will make the playback *jump* elsewhere in the score. You selected Repeat because you want the playback to jump to another *repeat mark* (in this case the coda sign), not necessarily a specific *measure*.

• In the Target text box, enter the Repeat number of the coda sign you created. This is the number you remembered when you placed the coda sign into the score (see "To place the coda sign in the score," above).

Because you've specified that the playback should jump to the coda sign itself (instead of specifying a measure number), you can change your mind about the location of the coda sign in the score. You can delete it and put it in another measure—even a measure that *precedes* the "To Coda ⊕" marking—and Finale will still direct the playback to it correctly.

• Click OK. You return to the score, where the "To Coda ⊕" mark appears in every staff. (To hide the marking in a certain staff, click the Staff Attributes Tool, then click the desired staff's handle. In the dialog box that appears, click Endings and Text Repeats. Click OK.)

TO MOVE OR DELETE THE "TO CODA ⊕" MARKING

• Click the Repeat Tool ▤ .

• If the marking doesn't already display a handle, click the measure containing it.

• To move the marking, drag its handle. To remove it, click the handle and then press Delete.

Commas See "Breath marks."

Composer credits To add a composer credit line ("Music by ..."), use the Header/Footer Tool in Page View.

TO ADD A COMPOSER CREDIT

• Click the Header/Footer Tool ▣ . Finale switches to Page View, if it's not already there.

• Double-click the page. The Header/Footer Designer appears with Header selected. If you want the credit to appear at the *bottom* of the page, click Footer (see "Copyright notice").

- Type text for the credit in the text box.
- Click Only On This Page and your choice of Justification. The three Justification options are Left (the header appears flush with the left margin, with a handle on the left end), Right (the header appears flush with the right margin, with a handle on the right end), or Centered (the header appears centered between the margins, with a handle in the center).
- Click Set Font, and choose a font and style for the header. Click OK, once in each dialog box. The credit appears on the first page.

TO MOVE OR DELETE A COMPOSER CREDIT

- Click the Header/Footer Tool ▣ , if it's not already selected. A handle appears on every header or footer.
- Drag the handle of a header or footer to move it. Select the handle and press Delete to remove it.

Composite meters

Composite meters ($^{3+2}$, for example) are not *only* valuable for creating unusual time signatures. Because the time signature governs *beaming* in Finale, you can create a meter such as $^{3+3+2}$, so that any music you enter will be automatically beamed in eighth-note groups of three, three, and two, for example. (Once you've done that, you can always return to the beginning and set the meter for the entire piece back to 4/4, since Finale only beams according to the time signature present *at the time the notes are entered.* See also "Beaming—To rebeam a selected region.")

TO CREATE A COMPOSITE METER

- Click the Time Signature Tool ▣ . A handle appears on each barline.
- Click the handle of the measure in which you want the new meter to begin. The Time Signature box appears.
- Click the upper Special button. A special dialog box appears, displaying a series of three-box sets. These boxes allow you to enter the numerator of the composite meter.
- Enter the series of numbers that constitute the numerator. If the components of the numerator are integers (as in a 3/4 + 2/4 meter), only enter numbers into the first box in each set of three. Use the two stacked boxes of each set to indicate fractions (as in 2½) for the numerator (keep in mind you have yet to build the denominator). Any fractions you build in this way appear in the score as decimals (as in 3.5/4).
  Click the right and left arrow buttons to move forward or backward in the chain of numbers. If you've already created several composite meters, use the Prev and Next buttons to view composite numerators you've already created.
- Click OK, then Yes. You see your numerator changes reflected in the meter display.
- If there are also multiple denominators, click the lower Special button. A similar box appears. Since there's no such thing as fractional denominators, there's only one box for each denominator. These boxes correspond to the numbers you entered in the Special numerator window—the first three denominators will appear directly underneath the first three numerators, for example.
  Finale will only accept standard denominator values. There's no such thing as a "third note," for example, so you can't enter a 3 in one of these text boxes. Finale will round off any such number to a legitimate value (1, 2, 4, 8, and so on). Click OK, then Yes in the Special Time Signature Lower Half dialog box.
- Click OK and click the range of measures this change should affect.

TO REMOVE A COMPOSITE METER

- Click the Time Signature Tool ▣ . A handle appears on each barline.

- Click the handle of the measure at which the composite meter begins. The Time Signature box appears.
- Click the upper Special button. The Special dialog box appears.
- Click Don't Use. Repeat the process for the denominator (lower Special button), if necessary.
- Set the (non-composite) meter in the usual way, click OK, and click the range of measures this change should affect.

Compound meters See also "Composite Meters."

Compound meters, sometimes called triple meters, are time signatures whose rhythmic pulses occur in threes, such as 3/8, 6/8, and so on.

TO CREATE A COMPOUND METER

- Click the Time Signature Tool ▦ . A handle appears on each barline.
- Click the handle of the measure at which you want the new meter to begin. The Time Signature box appears.
- Click the upper buttons to increase or decrease the numerator, and the bottom ones to increase or decrease the rhythmic value of the denominator. The way you define your triple meter is very important, because it also governs *beaming* for the region at the time notes are entered. To beam eighth notes in groups of three, for example, the values of the notes in the Time Signature window for a 6/8 meter should be *two dotted quarter notes*, not six eighth notes (which would produce *no* automatic beaming). In short, the lower buttons determine the *rhythmic value* of the pulse, including beaming groups, and the upper buttons determine *how many* pulses of that rhythmic value.
- Click OK. The Do You Want to Change dialog box appears, letting you specify the range of measures to be included in this meter change.
- Specify the range of measures you want this change to affect. If you want to change the meter through a given measure, type its number into the text box before clicking "This Measure Through Measure ___". Finale won't rebeam music that has already been entered in the affected region (see "Beaming—To rebeam a selected region".)

Conductor's score See "Imploding music." "Optimizing staves."

Con sordino See "Mutes."

Controllers (MIDI controllers) Controllers are devices on your MIDI keyboard that modify the music in some way: volume and sustain pedals, pitch and modulation wheels, and breath controllers are some examples. You can record any controller data when you use the Transcription Tool to transcribe your music.

This entry describes the general recording and playback of standard controllers. For information on specific controllers, see their separate entries: "Aftertouch," "Patches," "Pedaling," and "Pitch wheel."

TO SPECIFY WHICH CONTROLLERS YOU WANT TO RECORD (MIDI FILTER)

Because controller data consumes memory and disk space, you may opt not to record all types of controller data when you use the Transcription Tool.

- Before recording a performance with the Transcription Tool ▦ , choose Input Filter from the Transcribe menu. Finale displays the MIDI Input Filter dialog box. If you know the controller numbers you want recorded, you can directly enter them. If you don't know them, you can play them.

COPYING MUSIC

- Click Listen. Briefly play each controller you want to record in your upcoming performance. As you tap each pedal or wiggle each wheel, Finale records their controller numbers in the four text boxes. Be sure to also play a note or two, to tell Finale that it should also record *notes!*

  Any controllers you *don't* specify in this dialog box won't be recorded.

- Click OK. Proceed with your recording.

To RETAIN CONTROLLER DATA FOR SCORE PLAYBACK

When you record a performance with the Transcription Tool, Finale temporarily remembers the controller data you generated during the performance. However, Finale discards this information when it transcribes your performance into standard notation.

If you'll later want to hear (or copy) this data make sure you follow these steps before transcribing:

- Record a performance with the Transcription Tool 🔳.

- Before saving or transcribing the performance, click Capture MIDI Xpression. If Use Captured MIDI Expressions is selected in the Playback Options dialog box (in the Playback menu), Finale will play back the transcription applying the same controllers you did.

To COPY OR ERASE CONTROLLER DATA

See "MIDI—To copy or erase captured MIDI data."

Copying music
This entry outlines some general techniques for copying music from one place to another. For instructions on copying specific *elements* of music, see also "Chord symbols," "Lyrics," "Notes," and "Note Expressions."

See also "Mirroring", which shows you how to create "intelligent" copies that remain dynamically linked to their source music.

To SPECIFY THE MUSIC TO BE COPIED

- Click the Mass Mover Tool 🔳. The Mass Mover menu appears.

- Choose the elements you want to copy from the Mass Mover menu. If you want to copy everything—music, lyrics, measure widths, expression marks, and all—make sure Move Everything is checked in the Mass Mover menu. Otherwise, choose Move Only, and make your specific copying requests from the subsequent menu items.

- Select the region of music you want to copy. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or choose Select All from the Edit menu to select the entire file. You can also use the Set Selection command in the Mass Mover menu to select a large region without having to scroll.

To COPY TO ANOTHER PLACE IN THE FILE

- Select the music to be copied. The various methods for selecting music are outlined in "To specify the music to be copied," above.

- Drag the first source measure so that it's superimposed on the first target measure. If the first target measure is not on-screen, scroll until you see it. Then, while pressing CTRL-Shift-click the first target measure.

  In either case, the How Many Times dialog box appears (unless you're copying to a target measure directly above or below the source region).

- Type the number of times you want the material (horizontally) copied. Click OK.

To make a copy of a file from Finale

• Open the file and choose Save As from the File menu. A box appears, allowing you to name the copy. No two files in the same directory may have exactly the same name.

• Click Save. The copy of the file is left on the screen, and the original is automatically closed without saving changes.

To copy music to another file (one section at a time)

• Select the music to be copied. The various methods for selecting music are outlined in "To specify the music to be copied," above.

• Choose Copy from the Edit menu.

• Choose Open from the File menu, and select the target file.

• To *insert* the copied music between two existing measures, click the measure just *after* the desired insertion point. Choose Insert from the Edit menu. In other words, if you want the inserted music to appear between measures 3 and 4 of the target file, click measure 4. If the material you copied was from only one staff, but you're pasting into a many-staved score, the music on all the *other* staves will be shifted to the right (and empty measures added), even though you're only inserting into one staff. In other words, Finale will never misalign one staff's music with another's.

If, for example, the music was copied from ten staves, you don't have to insert all ten staves' worth into the target staff. You can highlight a single measure in only *four staves* of the target file. Only the first four staves of the copied material will be inserted. (As before, all *other* staves in the target file will also be shifted to the right, so that the existing music doesn't get misaligned.) On the other hand, if you *do* want the entire copied section to be inserted, be sure to select a measure in the target region at least as many staves "deep" as the copied region.

• If you want the copied music to *paste over* (replace) the music in the target file, select the region of music you want to replace. The "target" region doesn't have to be as large as the original copied section. If the copied material is ten measures long, you don't have to paste over a full ten measures in the target staff. You can highlight only six measures and they'll be replaced by the first six measures of the copied material (and the remaining four measures won't appear in the target file). Therefore, if you *do* want the entire copied section to be pasted, be sure to select a region as large as the copied region.

• Choose Replace Entries from the Edit menu. It's called Replace Entries because it doesn't wipe out any Score Expressions you've put into the target music. Only notes, musical elements attached to them, and Smart Shapes are replaced.

To copy music to another file (multiple passages)

• Select the music to be copied. The various methods for selecting music are outlined in "To specify the music to be copied," above.

• While pressing CTRL, choose Copy from the Edit menu. When you press the CTRL key while choosing Copy, you tell Finale to place the copied material into a file of its own, called a Clip File. By making Clip Files, you can copy many sections from a single file before closing it and then paste them, one by one, into a new file. You can also put often-used passages or motifs into their own Clip Files, ready for pasting anywhere you need them.

A box appears, asking you to name your Clip File.

• Name the Clip File, and click Save. Be sure to retain the file extension ".CLP" so that Finale recognizes this as a "clip" file. Repeat the process with as many other sections as you want: select the region, choose Copy while pressing CTRL, name and save the Clip File.

• Choose Open from the File menu, and select the target file.

- If you want to *insert* the copied music between two existing measures, click the measure just *after* the insertion point. While pressing CTRL, choose Insert from the Edit menu. Once again, the CTRL key tells Finale you intend to access a Clip File. When you choose Insert, a list box appears, displaying the names of the Clip Files you've created. Double-click the name of the desired Clip File. As before, if the material you copied was from only one staff, but you're pasting into a many-staved score, the music on all the *other* staves will be shifted to the right (and empty measures added), even though you're only inserting into one staff.

- If you want the copied music to *paste over* (replace) the music in the target file, select the region of measures whose music you want to replace. The copied material will only replace the selected region, even if all of it doesn't get pasted. Therefore, if you *do* want the entire copied section to be pasted, be sure to select a region as large as the copied region.

- While pressing CTRL, choose Replace Entries from the Edit menu. A list box appears, displaying the names of the Clip Files you've created. Double-click the name of the desired Clip File. (As before, Replace Entries doesn't wipe out any Score Expressions you've put into the target music. Only notes, musical elements attached to them, and Smart Shapes are replaced.)

Copyright notices
A copyright notice, often added to the bottom of the first (or every) page of a published score, is a form of footer in Finale.

TO ADD A COPYRIGHT NOTICE
- Click the Header/Footer Tool ⌷ . Finale switches to Page View, if it's not already there.
- Double-click the page. The Header/Footer Designer appears with Header selected. If you want the notice to appear on the *bottom* half of the page, click Footer.
- Type text for the notice in the text box. To create the copyright symbol (©), type ALT0169.
- Click Footer, Only On This Page (or All Pages), and your choice of Justification. The three Justification options are Left (the footer appears flush with the left margin, with a handle on the left end), Right (the footer appears flush with the right margin, with a handle on the right end), or Centered (the footer appears centered between the margins, with a handle in the center).
- Click Set Font, and choose a font and style for the footer. Click OK.
- Click OK. The notice appears on the first page (or all pages, if you so specified), with the justification you specified.

TO MOVE OR DELETE A COPYRIGHT NOTICE
- Click the Header/Footer Tool ⌷ , if it's not already selected. A handle appears on every header or footer.
- Drag the handle of the copyright notice to move it. Select the handle and press Delete to remove it.

Courtesy accidentals
A courtesy accidental, also called a cautionary or reminder accidental, is one that, according to the rules of accidental occurrence, isn't strictly necessary before a note. But there are times when the composer wants to remind the player that an accidental is (or is not) in effect for a particular note. For example, in a measure containing several G♭ accidentals, the first G in the next measure often has a courtesy natural attached, even though the G♭ is technically canceled in the new measure.

To CREATE A COURTESY ACCIDENTAL

- Click the Speedy Note Entry Tool ⊡ , and click the target measure. The editing frame appears.
- Click the notehead for which you want the accidental displayed. You can also position the insertion bar and crossbar on the notehead using the arrow keys.
- Press the asterisk (*) key. If there was no accidental on the note, a courtesy sharp, flat, or natural now appears. (If there *was* an accidental on the note, it is now hidden. Press the asterisk again to restore it.)

To CREATE PARENTHESES AROUND AN ACCIDENTAL

- Click the Speedy Note Entry Tool ⊡ , and click the target measure. The editing frame appears.
- Click the notehead whose accidental you want enclosed. You can also position the insertion bar and crossbar on the notehead using the arrow keys.
- If the note already has an accidental, press the P key.
- If you want to create a courtesy accidental simultaneously, press the P key and then the asterisk (*). To remove the parentheses while preserving the accidental, press the P key again.

Courtesy key signatures
Under usual circumstances, the key signature for a staff appears only at the beginning of each line, or at a key change. However, you can *force* the key signature to be displayed in any measure.

To FORCE THE DISPLAY OF THE KEY SIGNATURE IN A MEASURE

- Click the Measure Attributes Tool ⊞ . A handle appears on each barline.
- Double-click the (top) handle at the *end* of the measure in which you want the key signature to appear. The Measure Attributes dialog box appears.
- Select Restrike Key. Click OK. You can also *hide* a key signature in a measure where it would normally appear by selecting Ignore Key.

Courtesy time signatures
Under usual circumstances, the time signature appears only at the beginning of a piece or at a meter change. However, you can *force* the time signature to be displayed in any measure.

To FORCE THE DISPLAY OF THE TIME SIGNATURE IN A MEASURE

- Click the Measure Attributes Tool ⊞ . A handle appears on each barline.
- Double-click the (top) handle at the *end* of the measure in which you want the key signature to appear. The Measure Attributes dialog box appears.
- Select Restrike Time. Click OK. You can also *hide* a time signature in a measure where it would normally appear by selecting Ignore Time.

Credit lines See "Composer credits."

Crescendo/Decrescendo
A crescendo may be notated either as a "hairpin" shape or as text (*cresc.* or *crescendo*). The hairpin can be created with either of two Finale tools, depending on your purpose. If your goal is to create a *graphic* crescendo marking, you can do so quickly and easily with the Crescendo Tool (one of the Smart Shapes, in the Simple Note palette). A Smart Shape crescendo has two special advantages: first, it expands and contracts along with the music it affects; second, it automatically breaks into two segments if it straddles two staff systems.

If you want a *graphic* crescendo that also plays back (or the word *cresc.* that also affects playback), you can use the Staff Expression or Score Expression tools. This method is complex, but it is also very flexible. A Score Expression crescendo, for example, can appear in more than one staff at once.

The process is nearly identical for creating a crescendo or decrescendo marking.

TO CREATE A SMART SHAPE (GRAPHIC) CRESCENDO OR DECRESCENDO MARKING

- Click the Simple Note Entry Tool ▣ . The tool palette changes to display the Simple Note Entry Tools.
- Click the Crescendo Tool ◁ or Decrescendo Tool ▷ .
- Position the cursor so that its arrow points to the staff and measure where you want the marking to begin.
- Double-click and, on the second click, hold the button down and drag to the right. Your double-click marks the pointed end of the crescendo (or the open end of a decrescendo). Dragging increases the length of the marking. Release the mouse button when you've positioned the right end of the marking about where you want it.
  It's a good idea to press the Shift key just before you double-click and hold it down while you drag. This constrains the lengthening of the line to a perfectly horizontal plane, so that the marking is symmetrical and level.

TO MOVE, RESHAPE, OR DELETE A SMART SHAPE CRESCENDO OR DECRESCENDO
If a smart shape is selected, it displays a bounding box. If so, skip to the last step.

- Click the Simple Note Entry Tool ▣ . The tool palette changes to display the Simple Note Entry Tools.
- Click the Crescendo Tool ◁ or Decrescendo Tool ▷ . Any crescendo or decrescendo shape created with this tool displays a handle.
- Click the handle of the shape you want to modify. A bounding box appears, indicating that the shape is *selected*.
- Drag the right or left ends of the bounding box to move the endpoints. Drag the upper-middle part of the bounding box to widen the open end of the hairpin. Drag the lower middle to move the entire shape. Press Delete to remove it. If you press Shift while dragging, the pointer will be constrained to perfect horizontal or vertical movements.

Drag the upper middle
to change the width
of the opening.

Drag this region   Drag the lower   Drag this region
to move the left   middle to move   to move the
endpoint.   the entire shape.   right endpoint.
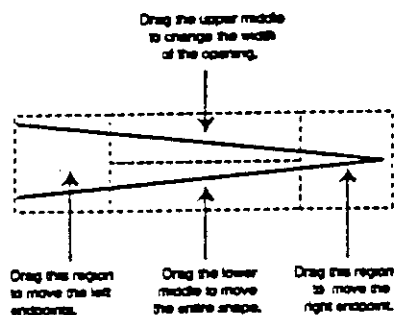
TO CREATE A TEXT EXPRESSION (SUCH AS "CRESC." OR "DECRESC.")
You can use any text you want in a Text Expression "crescendo," "diminuendo," and so on.

- Click the Staff Expression Tool ▣ (to place the marking in one staff) or the Score Expression Tool ▣ (to place it in several staves).

- Click on, above, or below the note (for Staff Expression) or measure (for Score Expression) to which you want to attach the marking. The Staff Expression or Score Expression Selection box appears. If the crescendo or decrescendo marking already appears in the list, double-click it and click OK. You return to the score.
- Click Create. The Text Expression Designer appears.
- Type the text for your Text Expression (crescendo, diminuendo, etc.). To set the font, click Set Font, make your selection and click OK. If you don't need to define the expression for playback, click OK or Select in each dialog box to return to the score. If you do want the mark to affect playback, skip to the instruction marked by the coda sign in the next subentry. Follow the instructions there until the final step, whereupon you can go ahead and click OK (instead of Cancel). The mark will appear in the score.

TO CREATE A SHAPE EXPRESSION CRESCENDO (GRAPHIC AND PLAYBACK)

This method of creating a crescendo is complex, but very flexible. It involves placing into the score a hairpin symbol that has been defined for playback. You can use either the Staff Expression Tool (to place the symbol in one staff) or the Score Expression Tool (to place the symbol in multiple staves).

If DEFAULT.MUS was in place when you created the file, you can skip these instructions, because it contains predefined hairpin symbols. You can likewise avoid constructing your own hairpins if you load a Shape Expressions Library by choosing Load Library from the File menu. In either case, jump ahead to the subentry, "To place a Shape Expression crescendo into the score." The instructions below show you how to create the symbol from scratch. For a more complete description of the Shape Designer, see "Shape Designer."

- Click the Score Expression Tool ⊞. Because the Staff Expression and Score Expression tools access the same palette of symbols, it doesn't matter which tool you use to create the shape.
- Click any measure. The Score Expression Selection box appears.
- Proceeding through the dialog boxes, click as follows: Shape, Create, *Shape ID*, Create. You're now in the Shape Designer.
- Fill in the coordinate boxes as shown below, and click the specified tool after entering each pair.

For a crescendo:

X:	Y:	Tool:
496	+4	Line Tool ⊠, then Return to Origin Tool ⊞
496	—+4	Line Tool ⊠

For a decrescendo:

X:	Y:	Tool:
—496	+4	Line Tool ⊠, then Return to Origin Tool ⊞
—496	—+4	Line Tool ⊠

For best results, now drag the gray square handles outward so that the "bounding box" encloses the hairpin, as shown below. (This bounding box determines how the shape will appear in the Shape Expression Selection palette.)
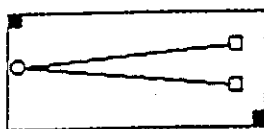
- Click OK, then Select. Now that you've created the shape, define it for playback. The crescendo will follow an *executable shape*—in other words, the volume level will change according to a contour you draw in the Shape Designer.

  This executable shape will look nothing like the *Shape Expression* (hairpin) that represents it in the score. A crescendo represents a steady volume increase over time; therefore, its executable shape is a straight diagonal line slanting upward. The steeper the line, the greater the volume increase.

- Click Playback. The Playback Definition box appears.

- Click Key Velocity. Key Velocity is the MIDI parameter to be affected by this symbol.

- Click Execute Shape. Proceeding through the dialog boxes, click as follows: Create. *Shape ID*. Create. You're again in the Shape Designer, ready to "graph" the volume change.

- Type 288 into the X: box, and 288 into the Y: box. Click the Line Tool ⬚ . If you're creating a decrescendo, type −288 in the Y box instead.

  You've just graphed an executable shape—a graph of volume over time. Drag the gray handles so that the bounding box encloses the shape.

- Click OK, then Select. You're back at the Executable Shape Designer.

- Type 3 into the first Level Scale box. You're specifying the *degree* of volume increase (or decrease) to be affected by your executable shape. A 4:1 Level Scale produces a crescendo that's twice as pronounced as a 2:1 Level Scale. For more information, see "Executable Shape Designer dialog box" in *Finale Reference*.

- Click OK or Select in each dialog box until the Score Expression Selection dialog box appears.

- Click Cancel. You don't want the mark to appear in the score yet.

To PLACE A SHAPE EXPRESSION CRESCENDO INTO THE SCORE

Once you've defined the shape (or loaded a Shape Expression Library, or begun your work from DEFAULT.MUS), all you need to do is place it into the score. Remember that only one of each shape is currently present in the piece (in the Shape Expression Selection box). If you had placed four crescendos into the score and then decided to stretch or reshape any one of them, you'd change the shape of *all four at once*, because you'd actually be redefining the shape of the *one* crescendo marking.

Sometimes this effect—changing the shape of all occurrences of a shape at once—is desirable. Most of the time, however, you'll want each crescendo to be independent. Hence, these instructions explain how to assign a crescendo to a Metatool. Each time you use a Metatool to place a shape into the score, Finale will create a *duplicate* of the original shape, allowing you to reshape any one of the symbols without affecting the others. (When you return to the Shape Expression Selection box, you'll find that for each time you used this Metatool, another copy of the hairpin was added to the palette.)

- To program a Staff Expression or Score Expression Metatool, click the Staff Expression Tool ⬚ or Score Expression Tool ⬚ . Remember, the Staff Expression Metatool will place the symbol in only one staff, the Score Expression Metatool will place the symbol in all staves (or, if you use Staff Lists, a subset of staves). However, the two tools share the same set of eight Metatools, so it really doesn't matter which one is selected when you create your Metatool.

- Press CTRL-1. The Staff (or Score) Expression Selection palette appears. (You can actually assign a shape to any of the Metatool numbers, 1 through 8. For this example, we'll link a shape to the number 1 key.)

- Click Shape, and double-click the hairpin shape. You're returned to the score, having successfully preprogrammed the Metatool. Here's how to use it:
- While pressing the 1 key, click the score. If this shape is to be a Staff Expression, you must click above, on, or below a note or rest. If it's a Score Expression, you can click anywhere on, above, or below a measure, even a blank one. In either case, the shape now appears in the score.

TO MOVE OR DELETE A CRESCENDO (TEXT EXPRESSION OR SHAPE EXPRESSION)

- Click the tool (Staff Expression or Score Expression) that you used to create the expression.
- Click the note (Staff Expression) or measure (Score Expression) to which the expression was attached. Its handle appears. (If the crescendo is a Shape Expression, the handle that moves the shape is the one at the "point" of the hairpin.)
- Drag the handle to move the expression. Select it and press Delete to remove it. If the crescendo is a Shape Expression hairpin, drag the handles on the open end to reshape it.

Cross-staff beaming See "Cross-staff notes."

Cross-staff notes See also "Reverse stems."
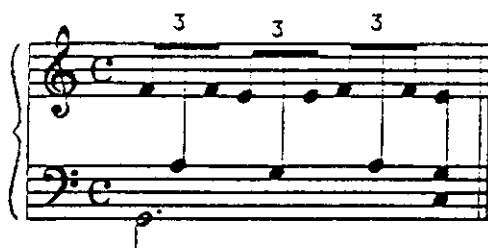
A cross-staff note is one that "belongs" to one staff but, for notational efficiency (for example, to eliminate the need for ledger lines), is written in another staff—often with a different clef. Its stem is stretched from the original staff to the "target" staff. You encounter cross-staff notes most often in keyboard music.

In Finale, you enter the music on the original ("source") staff and use the Note Mover Tool to move selected notes to other staves.

TO CREATE CROSS-STAFF NOTATION

- Enter the music in the usual way (all on one staff).
- Click the Note Mover Tool 🖾 . The Note Mover menu appears.
- Choose Cross Staff from the Note Mover menu.
- Click the measure containing the target notes. A handle appears on each note.
- Select the notes to be moved. You can select a single note by clicking its handle, additional notes by Shift-clicking their handles, and a group of notes by drag-enclosing them. When selected, the handles become highlighted.
- Drag any selected handle to the desired target staff. As you drag the single handle, all selected handles move simultaneously. You don't need to drag the handles to any particular pitch on the new staff—simply release the mouse button when the cursor is *directly on* the target staff, and you'll find that the notes have now moved to the new staff. Their beams and stems, however, still originate in the source staff.

TO RESTORE CROSS-STAFF NOTES TO THEIR SOURCE STAFF

- Click the Note Mover Tool 🖾 . The Note Mover menu appears.
- Click the *source* measure. Don't click the measure that now contains the notes. Click the measure they came from. A handle then appears on each note.

- Select the notes to be moved. You can select a single note by clicking its handle, additional notes by Shift-clicking their handles, and a group of notes by drag-enclosing them. When selected, the handles become highlighted.
- Press Delete. The selected notes are returned to their source staff.

TO RESTORE CROSS-STAFF NOTES TO THEIR SOURCE STAFF TEMPORARILY

At times, you may find your score easier to edit if all cross-staff notes are displayed on their original or "source" staves. With the following technique, you can tell Finale to restore them in this way temporarily. When you're ready to print the score, you can tell Finale to display them once again on the "target" staves to which you dragged them.

- Choose Options from the Special menu. The Options dialog box appears.
- Click Allow Cross Staffed Notes (to *uncheck* it). Click OK. When you want the cross-staff notes to return to their target staves, reselect Allow Cross Staffed Notes.

Crossed hands There are several conventions for notating crossed-hands playing in keyboard music. For example, you may choose to use Finale's cross-staff notes feature (see "Cross-staff notes"), and you may need to change the clef for one of the staves (see "Clefs").

If you play a crossed-hands performance into the Transcription Tool, Finale will attempt to *track* the positions of your hands as you play, even if the hands cross. To take advantage of this feature, choose Split, By Hand Width from the Transcribe menu after recording your performance. A dialog box appears, asking you to type (or play) your hand width. This doesn't necessarily mean the widest interval you can play with one hand; rather, it means the widest interval you played *in the piece*. When transcribing, Finale will attempt to separate the two hands onto two staves based on this maximum hand width. Of course, this feature works best if there is some degree of separation between your hands during the performance.

Because Finale knows the location of each hand at each moment, it will accurately notate passages where your hands cross—provided, again, that there is sufficient clarity of the two hands' parts, of rhythm and of separation. When you transcribe the performance you'll find that, while Finale doesn't attempt to change clefs for you, the correct notes are transcribed onto the proper staves.

– Cue notes Cue notes are reduced-size notes in a score that a player under normal circumstances isn't meant to play. Usually they indicate musical material being played by other instruments, and are used as an aid for keeping track of one's place in the music, especially during long rests. They may also appear in one player's part for him or her to play in case the primary instrument or player isn't available.

TO CREATE CUE NOTES ON A FULL-SIZE STAFF

- Enter the music at normal size.
- Click the Reduce/Enlarge Tool ⬚ .
- Click the *stem* of the note to be reduced (not its notehead). The Reduce/Enlarge Percentage box appears. If several notes are beamed together, you need only click the

first one. All attached notes will be uniformly reduced. If the notes aren't beamed, you'll have to repeat this procedure for each note. You should avoid clicking the notehead (doing so will result in a smaller notehead attached to full-size stems, beams, and flags).

- Enter the desired reduction value. For cue notes, 60% to 75% of full size is a typical reduction.
- Click OK. The note, chord, or group of beamed notes is now reduced. If you need more than one measure full of cue notes, see "To copy cue note reductions to other measures."

TO CREATE A CUE STAFF

You can also create an entire staff at a reduced size.

- Enter the music at normal size.
- Choose Page View from the View menu.
- Click the Reduce/Enlarge Tool 🔲 .
- Click to the left of the desired staff. The Reduce/Enlarge dialog box appears.
- Enter the desired reduction value. For a cue staff, 60% to 75% of full size is a typical reduction.
- Click OK and specify the range of systems in which you want this staff reduced. You can also reduce an entire *system*. Follow these same instructions, but instead of clicking to the left of a staff, click *between* two staves. You'll be offered two extra options: Hold Margins (to ensure that the *horizontal* dimension of the system doesn't get reduced) and Close Up Space (to reduce the space *below* the system as well). For a further discussion of these options, see "Percentage Reduction/Enlargement dialog box" in *Finale Reference*.

TO RESTORE A CUE NOTE OR CUE STAFF TO FULL SIZE ONE-BY-ONE

- Follow the instructions above, but when the Percentage Reduction/Enlargement box appears, click Delete. If you clicked a note, it's restored to full size. If you're restoring a cue *staff* to full size, Finale now asks what range of systems you want affected. Click the appropriate check box.

TO RESTORE A REGION OF CUE NOTES TO FULL SIZE

- Click the Mass Mover Tool 🔲 . The Mass Mover menu appears.
- Select the measures containing the existing cue notes. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or choose Select All from the Edit menu to select the entire file. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling.
- Choose Erase from the Mass Edit menu. Proceeding through the dialog boxes, click as follows: Only the Selected Items, Entries, Only the Selected Items. A dialog box appears, listing various elements you can erase.
- Click Note Head or Percentage Alterations. Click OK, once in each dialog box.

TO COPY CUE NOTE REDUCTIONS TO OTHER MEASURES

If you have many measures that will contain cue notes, you don't have to click each note, one by one, in each measure. Instead, you can create cue notes in just one measure and copy the reduction data to other measures.

- Click the Mass Mover Tool 🔲 . The Mass Mover menu appears.
- Choose Move Only from the Mass Mover menu.
- Choose Entry Items from the Mass Mover menu. A dialog box appears, listing various elements you can copy.
- Click Note Head or Percentage Alterations. Click OK.

- Select the measures containing the existing cue notes. You can select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, an entire staff by clicking to the left of it, or the entire piece by choosing Select All from the Edit menu.

- Drag the first selected measure so that it's superimposed on the first target measure. If the target measure isn't visible on the screen, scroll to it, then CTRL-Shift-click it. In either case, the "How Many Times" dialog box appears (unless you were copying to another measure directly above or below the source region).

- Specify the number of times you want the source region of reduction data copied horizontally. Click OK. Finale will reduce only those notes that occur on the same *beats* as the original cue notes. To ensure that all notes in the target measures get reduced, try this technique. Create a "dummy" measure with a string of unbeamed eighth notes (or sixteenths, or whatever is the smallest cue note value in your piece). Take the time to reduce each note in the measure individually. (Remember to click the *stem* of the note.) When you copy the reduction data of this measure to other measures (as you've done here), *every* target note will automatically be reduced uniformly, regardless of what beat it falls on or its value—because you've ensured that *every* beat of the source measure has been reduced. After you've completed the copying, delete the notes in the "dummy" measure.

Cue staves See "Cue notes."

Cutaway scores A *cutaway score* is one in which staves can begin and end in mid-system, appearing and disappearing in the score as necessary.

It's easy enough to create scores in Finale with entire *staves* that are present in each system only when they contain notes. Indeed, hiding staves in each system that contain only rests is the main purpose of Finale's *staff optimization* feature (see "Optimizing staves").

Such staves still occupy the full margin-to-margin width of the system, however. If you want a staff to begin or end halfway across the page (when the other staves in the system continue all the way to the page margins), you'll have to *mask*, or cover up, the portion of each staff you don't want to appear. The following technique only hides the masked portion of the staff when you print the file on a PostScript device.

To mask a portion of a staff, you'll create a solid white rectangle as a Shape Expression. By placing this shape over part of a staff, you can make the staff appear to end in mid-system. If you need to place more than one of these special shapes into your score, do so by using Staff Expression Metatools. If you don't, you'll be resizing *all* occurrences of the shape any time you move or reshape any *one* of them. See "Expressions: Staff Expressions—To create Note, Staff, or Score Expression Metatools" for full instructions.

To MASK A PORTION OF A STAFF

- Click the Staff Expression Tool 🔅, and click a note in the staff you want to mask. Click a note at the appropriate *end* of the staff. In other words, if you want the mask to cover the *end* of the staff, click the *first* note in it. The Staff Expression Selection dialog box appears.

- Click Shape. Proceeding through the dialog boxes, click as follows: Create, *Shape ID*, Create. To arrive in the Shape Designer. In this graphics environment, create a rectangle of the size and shape you want the mask to be.
This next step takes you through the creation of a mask that's the height of a standard staff and two inches wide. A negative Y: coordinate means you're drawing a line down and a negative X: coordinate means you're drawing a line that goes to the

left. All of these numbers are measurements in EVPUs (288 per inch). For a full discussion of the Shape Designer, see "Shape Designer." Not only can you change the dimensions given below, but you can stretch the mask once you've placed it into the score if it's not initially the right size or shape.

- Fill in the coordinate boxes as shown below. After you enter each pair, click the specified tool.

X:	Y:	Tool:
0	130	Line Tool
576	130	Line Tool
576	0	Line Tool , then Complete Enclosure Tool

If you make a mistake along the way, click Undo to cancel your last operation.

- Click OK, then Select. You arrive at the Shape Expression Designer dialog box.
- Click Flip Stroke and Paint White. The first of these options tells Finale to treat your mask as a solid, filled shape (instead of just an outline). The second tells Finale to print it as a *white* area instead of a black one.
- Click OK or Select in each dialog box to return to the score. The rectangle appears in the score as a transparent (not filled) rectangle. Drag it into position (over the part of the staff you want to hide), as described below.

You won't see the results of its masking action until you print the score on a PostScript device.

### TO MOVE OR DELETE A SHAPE EXPRESSION MASK

- Click the Staff Expression Tool , and click the note to which the shape was attached. Its handles appear.
- Drag the *bottom left* handle to move the shape. To reshape it, adjust the remaining handles one at a time, *clockwise.* To delete the shape, click the bottom left handle and press Delete.

Cut time
Cut time, also known as 2/2 or alla breve, is a meter with two half-note beats per measure. It's often symbolized by the cut-time symbol: ¢.

TO CREATE CUT-TIME METER

- Click the Time Signature Tool . A handle appears on each barline.
- Click the handle of the measure where you want the new meter to begin. The Time Signature box appears.
- Click the upper buttons to increase or decrease the numerator, and the bottom ones to increase or decrease the rhythmic value of the denominator. The way you define your meter is important because it also governs *beaming* in the region it affects when notes are entered. In the case of cut time, you should set the buttons so that the display shows two half notes. This way, the eighth notes will be beamed together in groups of four.

  Remember, the lower buttons determine the *rhythmic value* of the pulse, including beaming groups. The upper buttons determine *how many* pulses of the rhythmic value. Finale will display the cut-time symbol (¢) instead of a 2/2 time signature, unless you specify otherwise. See "To change the cut-time display [2/2, ¢, or another symbol]," below.)
- Click OK. The "Do You Want to Change" dialog box appears, letting you specify the range of measures to be included in this meter change.
- Click the desired option. If you want to change the meter *through* a given measure, type its number into the text box *before* clicking "This Measure Through Measure __". Finale won't rebeam music that has already been entered in the affected region (see "Beaming— To rebeam a selected region").

C CUT TIME

TO CHANGE THE CUT-TIME DISPLAY (2/2, ¢, OR ANOTHER SYMBOL)

- Choose Options from the Special menu.
- Click Abbreviate Cut Time. If there's an X in the box, Finale will display the cut-time symbol. If not, Finale will display 2/2. (You can also specify *any other* symbol you want Finale to use *instead* of the standard cut-time symbol, by clicking "Symbol" in this dialog box. Finale will display a complete palette listing every available symbol in the font you've chosen for your time signatures [by choosing Font Selection from the Special menu]. Double-click any symbol to substitute it for the standard symbol.)
- Click OK.

Da Capo (D.C.) See "D.C."

Dal Segno See "D.S., D.S. al Coda."

Dashes See "Dotted lines."

Date stamping
If you create a *date stamp*, Finale will automatically print the current date on your file each time you print it. To add a date stamp, use the Header/Footer Tool.

TO CREATE A DATE STAMP
- Click the Header/Footer Tool ▣ . Finale switches to Page View if it's not already there.
- Double-click the page. The Header/Footer Designer appears. (If you want the date stamp to appear at the *bottom* of the page, click Footer)
- Select your page incidence and justification preferences. The three justification options are Left (the header appears flush with the left margin, with a handle on the left end), Right (the header appears flush with the right margin, with a handle on the right end), or Centered (the header appears centered between the margins, with a handle in the center).
- Type a number symbol (#) in the text box. To create the number sign, press Shift-3.
- Click Replace Number Sign with the Current Date. To stamp the current time instead, click Replace Number Sign with the Current Time.
- Click Set Font, and choose a font, point size, and style for the header. Click OK.
- Click OK to exit the Designer dialog box. The date stamp appears on the pages you specified, with the justification you specified.

TO MOVE OR DELETE A DATE STAMP
- Click the Header/Footer Tool ▣ , if it's not already selected. A handle appears on every header or footer.
- Drag the date stamp's handle to move it. Select the handle and press Delete to remove it.

TO CHANGE THE DATE FORMAT FOR DATE STAMPING
- Choose Options from the Special menu. At the bottom of the box that appears, you see three options listed under the Date Format heading. You can choose the short format (11/3/84), the medium format (November 3, 1984) or the long format (Saturday, November 3, 1984).
- Click the date format you prefer. Click OK.

D.C.
Da Capo, or D.C., means "to the head." It directs the player to return to the beginning of the score. "D.C. al Coda" and "D.C. al fine" instruct the player to then play to the To Coda marking or to the end of the piece, respectively.

In Finale, the D.C. marking and its variants are repeat indications called a text repeat, meaning that they function the way a repeat barline would (but require no repeat barline).

TO PLACE A "D.C" MARKING IN THE SCORE
If you follow all of these steps, you'll create a *functional* text repeat that actually directs the playback of your score to the beginning of the piece. If the D.C. marking doesn't need to affect playback, follow only the first five steps (down to the instruction marked by the coda sign).

- Click the Repeat Tool ▤.
- Click the *last* measure to be played before returning to the beginning of the piece. The Repeat Selection box appears. If the D.C. marking already appears in the window, skip the next two steps.
- Click Create and type D.C. (or "D.C. al Coda," or "D.C. al fine"). Click Set Font to set the font and style, then click OK.
- Click OK. The marking now appears in the list of Text Repeats.
- Double-click the D.C. marking. The Repeat Assignment box appears.
  If you don't need your D.C. marking to be functional for playback, click OK to return to the score, where the D.C. marking appears.
- Click Jump on Total Passes and enter a number in the Total Passes box. Enter into the Total Passes box on which repetition of this music the playback should return to the beginning. If the playback should return to the first measure after playing the music only once (the usual situation), enter 1 in the Total Passes box.
- Click Jumper. Below the word Target, click Measure. You selected Jumper because the D.C. marking will make the playback *jump* elsewhere in the score. You selected Measure because you want the playback to jump to a specific measure in the piece (in this case, measure 1).
- In the Target text box, enter the measure number to which you want the playback to jump (usually measure 1).
- Click OK. You return to the score, where the D.C. marking appears in every staff. (To hide the marking in a particular staff, click the Staff Attributes Tool, then click the desired staff's handle. In the Don't Draw section of the dialog box that appears, click Endings and Text Repeats. Click OK.)

TO MOVE OR DELETE THE "D.C." MARKING

- Click the Repeat Tool ▤.
- If the marking doesn't already display a handle, click the measure containing it.
- To move the marking, drag its handle. To remove it, click the handle and then press Delete.

TO CREATE A FUNCTIONAL "TO CODA" MARKING AND ⊕ SIGN
See the entry for "Coda."

Decrescendo See "Crescendo/Decrescendo."

Designing shapes See "Shape Designer."

Dialogue See "Annotative text."

Diamond note heads See "Note shapes."

Diminuendo See "Crescendo/Decrescendo."

Distances You can set almost every aspect of your music's appearance. Here are a few distances and measurements you can set easily.

TO SET THE DISTANCE BETWEEN SYSTEMS

The distance between *systems* (in Page View and in printouts) is determined by the distance between the top of the music in *Scroll View* and the top of the window.

- If you're not in Scroll View, choose Scroll View from the View menu.
- Click the New Staff Tool ▣ .
- Choose Select All from the Edit menu. All staff handles are highlighted.
- To increase the distance between systems, drag any handle downward. To decrease the distance between systems, drag any handle upward. Keep in mind that the *number* of systems that will fit on a page is also determined by this distance you're now setting (as well as by the percentage reduction).

  You can further adjust the distance between systems by dragging them in the Page Layout window with the Global Adjustment command selected. See Tutorial 4 in *Learning Finale* for a more complete discussion.
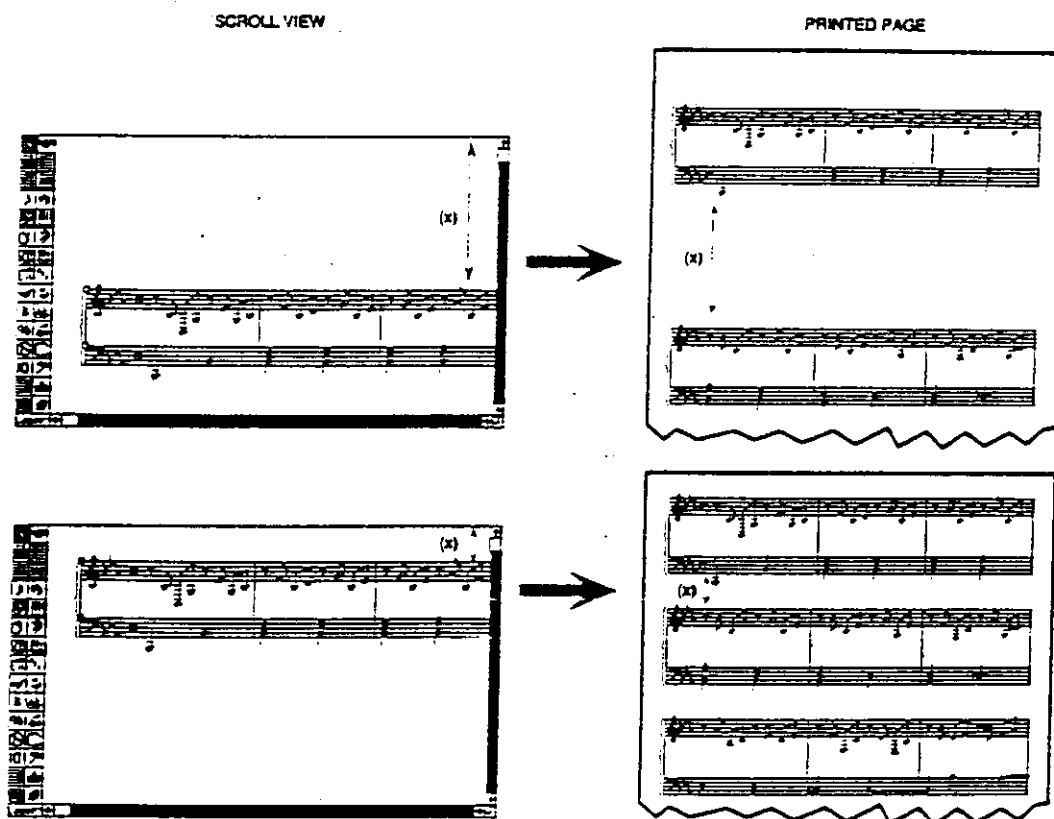
SCROLL VIEW   PRINTED PAGE

The distance between the top staff and the top of the window in Scroll View (x) sets the distance between systems in Page View (and on the printouts). The smaller this distance, the more lines of music will fit on the page.

TO SET THE DISTANCE BETWEEN STAVES

- If you're not in Scroll View, choose Scroll View from the View menu.
- Click the New Staff Tool ▣ .
- Drag any staff's handle up or down to move the staff vertically. You can drag more than one staff at a time if more than one staff is selected (by Shift-clicking or drag-enclosing their handles). If you have many staves, you can move all *except* one or two as follows. Choose Select All from the Edit menu to highlight all staves' handles. *Shift-click* the handles of the staves you *don't* want to move. When any staff's handle is selected, a Shift-click "deselects" it. Now drag any highlighted handle to move all selected staves at once.

D DISTANCES

TO SET THE DISTANCE BETWEEN NOTES

The distance between the notes in each measure is determined by your choice of an Allotment Library (see "Allotments" and "Spacing"). You can also drag individual notes horizontally in one staff (see "Note positioning"), and you can change the horizontal position of notes in all staves that fall on a certain beat (see "Beat positions").

TO SET CLEF, KEY, AND METER DISTANCES

You can set various global distances by choosing the Format command from the Special Menu. The Format Variables box appears, listing text boxes. The units in these boxes are EVPUs (288 per inch). Measurements *up* or to the *right* are positive numbers, measurements *down* or to the *left* are negative. This diagram shows some of those elements and the formatting distances they control:
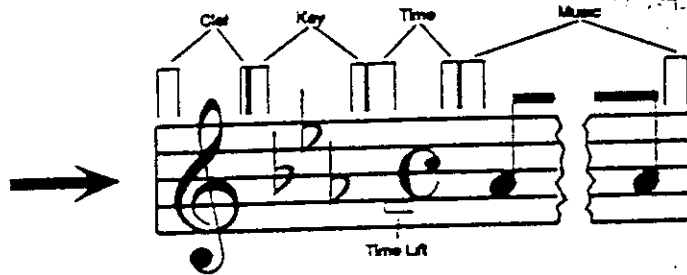
The distances given in the Separations boxes are depicted here; where an item has two boxes (such as Clef), they indicate the distances before and after the element. The only box not shown here is the third Key box, which determines the distance between a canceled key signature and a new one.

For a more complete discussion of these parameters, see "Format Variables dialog box" in *Finale Reference*.

TO SET THE DISTANCES BETWEEN TIES AND THEIR NOTES

See "Ties."

TO SET THE PAGE MARGINS

Also in the Format Variables dialog box (accessed by choosing Format from the Special menu) are global page margin settings, which are measured in EVPUs. Again, measurements *up* or to the *right* are positive numbers, measurements *down* or to the *left* are negative. These settings affect any new pages added to the piece. They won't affect existing pages until you choose Redefine All Pages from the Page Layout menu (and OK the dialog box that appears). You can override these settings on a page-by-page basis by using the Page Layout Tool.
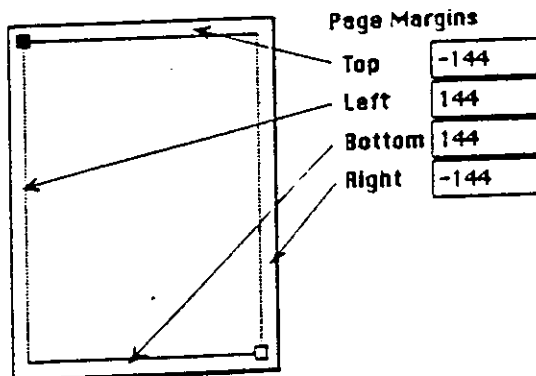
The Page Margin measurements are the distances between each margin and the edge of the page. The default page margins are 144 EVPUs, or half an inch.

TO SET THE SYSTEM MARGINS

Also in the Format Variables dialog box (accessed by choosing Format from the Special menu) are global system margin settings, which are measured in EVPUs. Again, measurements *up* or to the *right* are positive numbers, measurements *down* or to the *left* are negative. These settings affect any new pages added to the piece. They won't affect systems on existing pages until you choose Redefine All Pages from the Page Layout menu (and OK the dialog box that appears). You can override these settings on a page-by-page basis by using the Page Layout Tool.

The System Margin numbers define the placement and shape of the individual systems. The Right and Left margins are the distances from the edge of the system to the right and left *page margins*, respectively, (both are usually zero). The Top margin is the distance between the top of each system and the bottom of the one above it (which is usually zero), and the Bottom margin is the distance between the bottom of one system and the top of the next. This last measurement's default is –200, so that there's a small amount of extra space between bottom of one system and the top of the next. See also "Systems."

Divisi See also "Expressions: Staff Expressions."

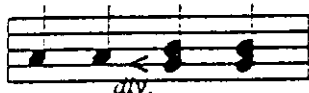A *divisi* indication is a normal Text Expression that you place in a part (such as a string part) to indicate that the section of players should split up—one group should read the top written notes and the rest should read the bottom written notes. Use the Staff Expression Tool 🔲 or Score Expression Tool 🔲 to place the marking into the score.

Tip: If you want to create a bracket or "split up" marking as shown above, simply create a second Text Expression that consists only of a "less-than" marking (Shift-period), like this: <, or a left bracket, like this: [, so that you clearly indicate which notes are to be played by each group of players.

Doits A *doit* is an effect often performed by brass instruments in which the player produces a kind of upward glissando after attacking the indicated note, producing the opposite of a "fall-off" effect. You can create the word "doit" as a Staff Expression (see "Expressions — Staff Expressions"), and the line itself as a second Staff Expression (in this case, a Shape Expression). For instructions on creating an adjustable line in the score with the Staff Expression Tool, see "Glissando."

Dotted lines There are two ways to produce dotted lines of any length in Finale. If the dotted line serves as a horizontal indicator line to show the region affected by an *expression mark* (such as 8va), you can use one of the Smart Shapes. A Smart Shape has three advantages. First, it expands and contracts along with the measures it appears in. Second, it will automatically break into two segments if it straddles two staff systems. Third, a Smart Shape dotted line comes already equipped with a hook at the end. You place Smart Shapes into one staff at a time.

If the dotted line you need is not horizontal (such as a dotted barline) you can create one in the Shape Designer, where you can also specify the thickness of the line and the length of the dashes.

TO CREATE A HORIZONTAL DOTTED LINE (SUCH AS AN 8ᵛᵃ BRACKET)

- Click the Simple Note Entry Tool ⬚ . The Simple Note palette appears.
- Click the Under-Bracket or Over-Bracket Tool (⬚ or ⬚). One dotted bracket ends with a downward hook, and the other ends with an upward hook. Use the bracket with a downward hook if you're placing it *above* the staff, and the one with the upward hook if it's going below the staff.

  If you're creating an 8ᵛᵃ or 8ᵛᵇ marking, you'll notice that there are Smart Shape tools specifically for these indications. Click the appropriate tool instead. The 8va and 8vb tools work precisely the same as the plain dotted line, except that they automatically place an 8ᵛᵃ marking at the beginning of the line. To specify whether the 8ᵛᵃ or 8ᵛᵇ marking appears at the beginning of the dotted line with an upward hook, CTRL-click the "8va Under" icon and make your selection from the dialog box that appears.

- Position the cursor so that its arrow points to the staff and measure where you want the marking to begin.
- Double-click and, on the second click, hold the button down and drag to the right. Your double-click marks the beginning of the line. Dragging increases the line's length. Release the mouse button when you've positioned the right end of the marking about where you want it.

TO MOVE, RESHAPE, OR DELETE A SMART-SHAPE DOTTED LINE

If a smart shape is selected, it displays a bounding box. If so, skip to the last step.

- Click the Simple Note Entry Tool ⬚ . The tool palette changes to display the Simple Note Entry Tools.
- Click the Over-Bracket or Under-Bracket Tool (⬚ or ⬚) that you used to create the line. Any dotted line bracket created with this tool displays a handle.
- Click the handle of the line you want to modify. A bounding box appears, indicating that the line is *selected*.
- Drag the right or left ends of the line to move its endpoints. Drag the middle of the line to move it. Press Delete to remove it.

TO CREATE A DOTTED LINE IN THE SHAPE DESIGNER

- Click the Staff Expression Tool ⬚ (to place the line in one staff) or the Score Expression Tool ⬚ (to place it in several or all staves).
- Click on, above, or below the note (for Staff Expression) or measure (for Score Expression) to which you want to attach the line. The Staff Expression or Score Expression Selection box appears. Click Shape. If the dotted line shape already appears, double-click it and click OK. If it does not, follow the steps below.
- Proceeding through the dialog boxes, click as follows: Create, *Shape ID*, Create. You're now in the Shape Designer.
- Click the Dashed Line Tool ⬚ . A dialog box appears, letting you specify the length of the dashes and spaces.
- Enter the length of the dashes in the dotted line (in the Dash On text box) and the length of the gaps between dashes (Dash Off). Click OK. These numbers are hundredths of a point, of which there are 72 per inch.
- Click the Line Thickness Tool ⬚ . Another dialog box appears.
- Enter the line thickness. Click OK. The line thickness is also measured in hundredths of a point.

  The key is to set the thickness and "dottedness" (the length of dashes and spaces) of the line *before you draw it*. Once you've set the line thickness and dash lengths, you can create your shape in the usual way. To draw a straight line, click anywhere in the window (or enter X and Y coordinates) and click the Line Tool ⬚ . When the line appears, you can

drag to move the line or change its angle. To draw a curved line, click the Curve Tool ⬡ . Like a straight line, a curved line has a handle at each endpoint, but it also has two midpoint handles that you can drag to reshape the curve.

Even when you add additional lines and curves to your shape, the line will continue to have the dash lengths and line thickness you've specified until you change those variables again. (Dotted *straight* lines do appear dotted in this window—and in the score—unless they're perfectly vertical. Curved lines don't appear dotted at all on the screen. Both lines will appear dotted when you print to a PostScript device, however.)

- Draw the line by clicking its endpoint (or entering X and Y coordinates) and clicking the Line Tool ⬡ or Curve Tool ⬡ .

- Click the OK and Select buttons to exit the dialog boxes.

To move, reshape, or delete a Staff Expression or Score Expression line

- Click the tool (Staff Expression or Score Expression) that you used to create the dotted line.

- Click the measure (Score Expression) or note (Staff Expression) to which the expression is attached. Its handles appear. You'll notice that one of them is a "home" handle— which, when you designed the line in the Shape Designer, was represented by the round white "origin" handle. This "home" handle is the one you must select to move or delete the dotted line.

- Drag a handle to reshape the expression. Drag the "home" handle to move the line, or select it and press Delete to remove it.

Dotted notes

To dot a note

- Click the Speedy Note Entry Tool ⬡ . Click the target measure. The editing frame appears.

- Press the right arrow key to move the insertion bar to the note you want to dot.

- Press the period (.) key. The note is now dotted. By pressing the period key again, you'll add a second dot, and so on. You can add up to ten dots to a note. (If Finale tells you that "some of the entries in the measure exceed the time signature" before you're finished editing this measure, choose Clip to Measure from the SpeedOptions menu to turn it off.)

To remove a dot from a note

- Click the Speedy Note Entry Tool ⬡ . Click the target measure. The editing frame appears.

- Press the right arrow key to move the insertion bar to the note you want to change.

- Press a number key, 1 through 8. The note will change to the undotted duration value corresponding to the key you pressed: 4 is an eighth note, 5 is a quarter, 6 is a half, and so on. A table of the duration corresponding to each key appears on the Quick Reference Card.

To change the position of all dots

- Choose Format from the Special menu. The Format Variables box appears.

- Enter a new value in the Dot Offset box. This value, measured in EVPUs (288 per inch), determines how far away the dot will be from the note. The higher the number, the farther to the right the dot will be (and the more space there will be between dots when there is more than one on a note).

- Click OK.

To CHANGE THE POSITION OF A SINGLE DOT

- Click the Special Tools Tool ▣ . Click the target measure. The Special Tools window appears.
- Click the Dot Tool ▣ . A handle appears on each dotted note.
- Click the handle of the note whose dot positions you want to change. A dialog box appears in which you can enter EVPU values (288 per inch) for the precise positioning of this dot.
- Enter new values for the dot placement variables. The X and Y Offsets represent distances greater than the horizontal and vertical coordinates of the dot, respectively, as measured from its *default* position. A higher X Offset value means farther to the right and a higher Y Offset value means upward. (A change of 24 EVPUs moves the dot one *space* [the distance between two staff lines].)

  The Inter-Dot Spacing sets the distance between the dots of a note that has more than one dot. The default value is 8, even though the value in the text box defaults to zero. Therefore, be sure to enter 8 in the Inter-dot Spacing box for a multi-dotted note if you *don't* want to affect the spacing between dots. (Otherwise, when you return to the Special Tools window, Finale will place all dots in a row with no space at all between them.)
- Click OK. You return to the Special Tools window.
- Double-click the Control-menu box (upper left).

To UNDO INDIVIDUAL DOT POSITIONING

- Click the Special Tools Tool ▣ . Click the target measure. The Special Tools window appears.
- Click the Dot Tool ▣ . A handle appears on each dotted note.
- Click the handle of the note whose dot you want to restore to its original position. A dialog box appears.
- Click Delete. You return to the Special Tools window.
- Double-click the Control-menu box (upper left).

Double barlines

To CREATE A DOUBLE BARLINE

- Click the Measure Attributes Tool ▣ . A handle appears on each barline.
- Double-click the top handle of the barline you want to change. The Measure Attributes box appears.
- Select Double Bar. Click OK. To restore the single barline, repeat the process, but click Double Bar again to remove the X from the check box.

Double flats/Double sharps See "Accidentals."

Double stems See "Stems—To create a double or split stem."

Double strokes See "Cesura."

Double whole notes The double whole note, or breve (⊙ or ⊟) has a duration of eight beats. Either notehead may also be used to represent recitative on a single pitch.

To ADD A DOUBLE WHOLE NOTE (USING MIDI INPUT)

- Click the Speedy Note Entry Tool ⊡. The SpeedOptions menu appears. Make sure there's a check mark beside Use MIDI Keyboard.
- Click the measure in which you want to place a double whole note. The editing frame appears. Position the insertion bar to the right of any existing notes in the measure.
- Hold down a key (or keys) on the synthesizer and press the 8 key on the computer keyboard. A double whole note appears of the pitch you played.

To ADD A DOUBLE WHOLE NOTE (WITHOUT MIDI INPUT)

- Click the Simple Note Entry Tool ⊡. The Simple Note palette appears.
- Click the Double Whole Note ⊡.
- Click where you want the note to appear in the score. A double whole note appears.

To CHANGE A NOTE'S DURATION TO A DOUBLE WHOLE NOTE

- Click the Speedy Note Entry Tool ⊡. Click the measure containing the note. The editing frame appears.
- Press the right arrow until the insertion bar is on the note whose duration you want to change.
- Press the 8 key. Alternate method: using the Simple Note Entry Tool ⊡ click the Double Whole Note ⊟ and click the note you want to change.

To SUBSTITUTE THE ⊟ NOTEHEAD FOR THE ⊙ NOTEHEAD GLOBALLY

Follow these instructions if you want Finale to use the ⊟ notehead instead of the default ⊙ notehead for the double whole note.

- Choose Music Characters from the Special menu. The Music Characters dialog box appears.
- Click *Dbl Whole* (in the left column). Finale displays a palette containing every symbol in the Petrucci music font.
- Double-click the ⊟ notehead. You return to the dialog box.
- Click OK.

To SUBSTITUTE THE ⊟ NOTEHEAD FOR THE ⊙ NOTEHEAD ON A NOTE-BY-NOTE BASIS

See "Note shapes—To change the shape of a notehead."

Downbeats You can control Finale's graphic handling of downbeats. For example, you might decide that one or all of the downbeats in your piece occur too close to the beginning of the measure.

To MOVE ALL DOWNBEATS GRAPHICALLY

- Choose Format from the Special menu. The Format Variables box appears.
- Enter a new value in the first Separations/Music text box. The number you type here, measured in EVPUs (288 per inch), represents the distance between the *measure header* (clef, key, meter) and the first note or rest in the measure. By increasing the number, you can allow more space before every downbeat in the piece. Click OK.

To MOVE A SINGLE DOWNBEAT GRAPHICALLY

See "Beat positions—To move a beat."

Downbow See "Bowing."

D.S., D.S. al Coda

D.S., or Dal Segno, means "from the sign." It directs the player to return to a spot earlier in the score that's marked by the Dal Segno symbol (%). If, after making the jump, the player encounters a To Coda marking, he or she then jumps to a coda section at the end of the music, marked by the coda sign ⊕.

In Finale, the D.S. is a form of repeat sign known as a *text repeat*, meaning that it functions the way a repeat barline would, but requires no repeat barline. If you have no need for functional D.S. markings (which affect playback), you can skip ahead to the subentry "To place a D.S. marking in the score."
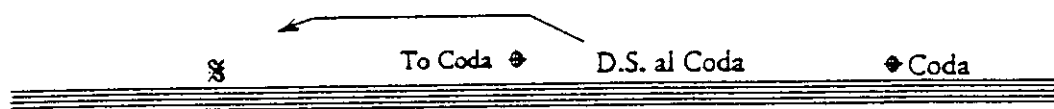
When Finale reaches the D.S. marking during playback, it jumps back to the % sign ...
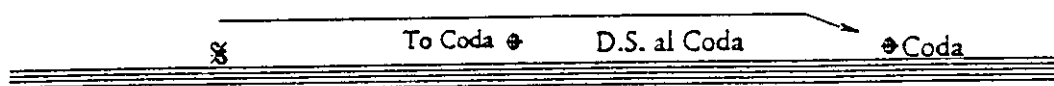
...and repeats the music up to the To Coda marking, whereupon it jumps to the coda.

To place the segno symbol % in the score

- Click the Repeat Tool 🔲.
- Click the measure in which you want the symbol to appear. The Repeat Selection box appears. If you've loaded a Text Repeat Library—or if DEFAULT.MUS is in place—you should see the % symbol. Double-click it and skip the next three steps.
- Click Create. The Repeat Designer appears.
- Type Shift-5. Click Set Font and set the font to Petrucci 24 point. Click OK. In the Repeat Text box the mark still appears in the System font. But in the score, the mark will be a true % symbol.
- Click OK, then Select. Now you arrive at the Repeat Assignment dialog box. Here's an important step:
- Note the Repeat number of the % mark. At the top of the dialog box, you should see an indicator that says "Repeat: 1" (or whatever number Finale has assigned to the segno symbol). You'll need to remember this number.
- Click Mark. You've just defined this text repeat to be a *mark*—in other words, a marker to which *other* text repeats ("D.S.," in this example) will direct playback.
- Click OK. The % symbol appears in all staves. (To hide the symbol in a certain staff, click the Staff Attributes Tool, then click the desired staff's handle. In the Don't Draw section of the dialog box that appears, click Endings and Text Repeats. Click OK.)

To move or delete the segno symbol %

- Click the Repeat Tool 🔲.
- If the marking doesn't already display a handle, click the measure to which it's attached.
- Drag the symbol's handle to move the symbol. Select it and press Delete to remove it.

To PLACE A "D.S." MARKING IN THE SCORE

If you follow all of these steps, you'll create a *functional* text repeat that actually directs the playback of your score to the measure containing the 𝄋 symbol. If the D.S. marking doesn't need to affect playback, follow only the first five steps.

- Click the Repeat Tool 🔲.
- Click the *last* measure to be played before jumping to the 𝄋 symbol. The Repeat Selection box appears. If the D.S. marking already appears in the window, skip the next two steps.
- Click Create and type D.S. (or D.S. al Fine, or D. S. al Coda). Click Set font to set the font and style, then click OK.
- Click OK. The D.S. marking now appears in the list of Text Repeats.
- Double-click the D.S. marking. The Repeat Assignment dialog box appears.

  If you don't need your D.S. marking to be functional for playback, simply click OK to return to the score, where the D.S. marking appears.

- Click Jump on Total Passes and enter a number in the Total Passes box. Enter into the Total Passes box on which repetition of this music the playback should jump to the 𝄋 symbol. If the playback should return to the 𝄋 symbol after playing the music only once (the usual situation), enter 1 in the Total Passes box.
- Click Jumper. Below the word Target, click Repeat. You selected Jumper because the D.S. marking will make the playback *jump* elsewhere in the score. You selected Repeat because you want the playback to jump to another *repeat mark* (in this case the 𝄋 symbol), not necessarily to a specific *measure*.
- In the Target text box, enter the Repeat number of the 𝄋 symbol you created. This is the number you remembered when you placed the 𝄋 symbol into the score (see "To place the segno symbol 𝄋 in the score," above).

  Because you've specified that the playback should jump to the 𝄋 symbol itself (instead of specifying a particular measure), you can change your mind about the location of the symbol in the score. You could delete it and put it in another measure and Finale will still direct the playback to it correctly.

- Click OK. You return to the score, where the D.S. marking appears in every staff. (To hide the marking in a certain staff, click the Staff Attributes Tool, then click the desired staff's handle. In the Don't Draw section of the dialog box that appears, click Endings and Text Repeats. Click OK.)

To MOVE OR DELETE THE "D.S." MARKING

- Click the Repeat Tool 🔲.
- If the marking doesn't already display a handle, click the measure to which it's attached.
- To move the marking, drag its handle. To remove it, click the handle and then press Delete.

To CREATE A FUNCTIONAL "To CODA" MARKING AND ⊕ SIGN

See the entry for "Coda."

Durations See "Start and Stop Times."

Dynamics See also "Crescendo/Decrescendo," "Key velocity."

You can place dynamics into your score either globally (in all staves, using the Score Expression Tool) or one staff at a time (using the Staff Expression Tool).

Dynamics, along with other Text Expressions, are stored in a Text Expressions Library. If you're not working from DEFAULT.MUS, as described in *Learning Finale*, then you'd be wise to load the Text Expressions Library provided with the program, which saves you the trouble of creating dynamics anew.

Dynamics may be purely graphic or they may be defined for playback. The predefined Text Expression dynamics provided with Finale have been defined for playback—but feel free to modify them, as described below. If your synthesizer is *velocity sensitive*, you'll hear Finale respond to these dynamic markings as the music plays back.

To CREATE A DYNAMIC MARKING

If DEFAULT.MUS was in the same directory as FINALE.EXE at the time you created the current file, you can skip these instructions. Most of the common dynamics are already loaded. Even if DEFAULT.MUS wasn't present, you can choose Load Library from the File menu, and double-click TEXTEXPR.LIB in the LIBRS directory. This process, too, will load most of the dynamic markings into the current piece. You only need to go through the following steps if you want to create your own dynamic marking, or if you simply want to learn the process.

- Click the Score Expression Tool 𝑤. Click any measure. The Score Expression Selection box appears.
- Click Create. The Text Expression Designer appears.
- Type the letter that corresponds to the dynamic marking you want to create. A full list of the dynamic markings in the Petrucci music font appears on the Quick Reference Card. For example, lower-case f is the *f* marking, capital F is the *mf* marking, and so on.
- Click Set Font. Set the font to Petrucci 24 point and click OK. You can also use characters from other fonts.
- Click OK, then Select. The Expression Assignment dialog box appears. If you want the new dynamic marking to appear in the score (as a Score Expression), click OK. If you simply want to add it to the palette without actually placing it into the score, click Cancel.

To PUT A DYNAMIC MARKING INTO ONE, SEVERAL, OR ALL STAVES

- Click the Staff Expression Tool ⊞ (to place the marking in one staff) or the Score Expression Tool 𝑤 (to place it in several or all staves).
- Click on, above, or below the note (for Staff Expression) or measure (for Score Expression) to which you want to attach the marking. The Staff Expression or Score Expression Selection box appears. If the scroll bar is gray, you can scroll up or down to see more Text Expressions.
- Double-click the desired dynamic. If you're placing a dynamic marking as a Score Expression but you want to *specify* the staves in which it's to appear, click "Staff List". Finale displays a list of all staves in the piece. In the Score column, click for each staff in which you want to place the dynamic (an X appears). You can also specify whether or not the dynamic should appear in a staff's *extracted part* by placing an X in the Part column. The Part column also determines which staves in the *full score* will be affected by the Score Expression's playback effects. When you're finished configuring the Staff List, click OK.

- If you're placing a Score Expression, you can click Individual Positioning. Individual Positioning permits you to move the dynamic marking independently in each staff. (If you don't select this option, the mark will appear in the same place in every staff. When you drag any one, all others will move simultaneously.)
- Click OK.

TO MOVE OR DELETE A DYNAMIC MARKING

- Click the tool (Score Expression or Staff Expression) that you used to create the marking.
- Click the measure (Score Expression) or note (Staff Expression) to which the marking was attached. Its handle appears.
- Drag the handle to move the marking. Select it and press Delete to remove it.

TO DEFINE A DYNAMIC MARKING FOR PLAYBACK

The dynamics preloaded into DEFAULT.MUS (as well as those in TEXTEXPR.LIB) have already been defined for playback. You can use the following steps to alter such definitions (to make a *forte* louder, for example).

- Click the tool (Score Expression or Staff Expression) used to create the marking.
- Click the measure (Score Expression) or note (Staff Expression) to which the marking was attached. If the marking hasn't yet been placed in the score and you simply want to edit its definition from within the Selection palette, click *any* measure (Score Expression) or note (Staff Expression). When the palette appears, click the target marking and click Edit, then Playback, and skip the next step.
- CTRL–Shift–double-click the marking's handle. The Playback Definition dialog box appears.
- Click Key Velocity (if it isn't already selected). Enter a velocity value in the Set To Value box. The value you enter here is the MIDI key velocity value that Finale will apply to all the music, beginning at the point where it first encounters the dynamic marking and ending only when it encounters another marking. MIDI velocity is measured on a scale from 0 (silent) to 127 (very loud). If you're editing a dynamic that came with Finale, you'll notice that a velocity value has already been defined. Feel free to change it. The changes you make only affect the definition of the dynamic marking *in this file*, although you can store this file's set of modified dynamic marks in a Text Expressions Library, ready for use in other files, by choosing Make Library from the File menu. Then you can "borrow" the modified markings for use in other files.
- Click OK, once in each dialog box.

Early music A number of Finale features may help you to notate early music. For example, see "Note shapes" for instructions on using diamond noteheads for Gregorian chant notation. To create music with no barlines (another plainchant convention), see "Barlines—To hide a barline." To find out how to create the four-line Gregorian staff, see "Staff lines." If you're handy with a font editing program, you could even create new noteheads for use in ligature notation. See "Fonts" and "Note shapes" for instructions on using your custom notehead shapes in Finale.

Eighth notes You can enter eighth notes into the score with or without MIDI. You can also change any existing note into an eighth note. See also "Beaming."

TO ADD AN EIGHTH NOTE (USING MIDI)

- Click the Speedy Note Entry Tool ⊟. The SpeedOptions menu appears. Make sure there's a check mark beside Use MIDI Keyboard in the menu.
- Click the measure in which you want the eighth note to appear. The editing frame appears. Position the insertion bar to the right of any existing notes in the measure.
- Hold down a key (or keys) on the synthesizer and press 4 on the computer keyboard. Any pitches you played appear as eighth notes.

TO ADD AN EIGHTH NOTE (WITHOUT MIDI)

- Click the Simple Note Entry Tool ⊟. The Simple Note palette appears.
- Click the Eighth Note ⊟.
- Click on a staff. An eighth note appears.

TO CHANGE A NOTE'S DURATION TO AN EIGHTH NOTE

- Click the Speedy Note Entry Tool ⊟. Click the measure containing the note you want to change. The editing frame appears.
- Press the right arrow until the insertion bar is on the note whose duration you want to change.
- Press the 4 key. Alternate method: click the Simple Note Entry Tool ⊟, click the Eighth Note ⊟, and click the note you want to change.

8va/8vb There are two ways to create an 8va marking. The quick, simple way involves the Smart Shape 8va tools, which produce 8va markings complete with a dotted-line bracket that expands and contracts along with the measures it appears in.

If you need an identical marking in more than one staff, you can create a Score Expression 8va marking. If you need an 8va marking that actually affects playback, you can create it either as a Staff Expression (one staff) or Score Expression (several or all staves). Using the Staff Expression or Score Expression methods, you can also create a 15va marking (quindicesima, to be played two octaves higher).

TO CREATE AN INTELLIGENT 8va OR 8vb MARKING

- Click the Simple Note Entry Tool ⊟. The palette changes to the Simple Note palette.
- Click the 8va Under ⊟ or 8va Over tool ⊟. The 8va marking almost always goes *beneath* the music it affects. To specify that in this Finale file you want the under-bracket 8va Tool to create an 8vb marking instead of the default 8va, CTRL-click it. A small dialog box appears, letting you choose either marking to appear at the beginning of the bracket.
- Position the cursor so that its arrow points to the staff and measure where the marking is to begin.

• Double-click. On the second click, hold the button down and drag to the right. Your double-click marks the 8ᵛᵃ end of the marking. As you drag, you increase the length of the dotted-line bracket. Release the mouse when you've positioned the right end where you want it.

To MOVE OR RESHAPE A SMART SHAPE 8ᵛᵃ OR 8ᵛᵇ MARKING

If the marking is already selected, it displays a dotted bounding box. If so, skip to the instruction marked by the coda sign.

• Click the Simple Note Entry Tool ⬚ . The tool palette changes to display the Simple Note tools.

• Click the Smart Shape tool that you used to create the marking. Any 8ᵛᵃ Smart Shape created with this tool displays a handle.

• Click the handle of the marking you want to modify. A bounding box appears, telling you that the marking is now *selected.*

⊕ Drag the right or left ends of the bounding box to move the endpoints. Drag the middle of the bounding box to move the marking. Press Delete to remove it. If the 8ᵛᵃ bracket is long enough that it straddles a staff system, it will automatically break into two segments. The continuation portion will have an 8ᵛᵃ in parentheses.

To PLACE THE 8ᵛᵃ, 8ᵛᵇ, OR 15ᵐᵃ MARKING AS A STAFF EXPRESSION OR SCORE EXPRESSION

• Click the Staff Expression Tool ⬚ (to place the marking in one staff) or the Score Expression Tool ⬚ (to place it in several or all staves).

• Click on, above, or below the note (for Staff Expression) or measure (for Score Expression) to which you want to attach the marking. The Staff Expression or Score Expression Selection box appears. If the desired marking already appears in the list, double-click it and click OK.

• Click Create. The Text Expression Designer appears.

• Type ALT0195 (for 8va) or ALT0215 (for 8vb), or ALT0219 (for 15ma).

• Click Set Font. Set the font to Petrucci 24 and click OK.

• Click OK, then Select. A dialog box appears, allowing you to specify some playback and positioning parameters for the marking. If you're creating a Score Expression, you can specify Individual Positioning. If you want to specify the staves in which the marking is to appear, click *Staff List*. See "Expressions: Score Expressions" for more information.

• Click OK. Now that you've created the 8ᵛᵃ marking itself, you can add the dotted-line bracket with one of the Smart Shape dotted-line tools. See "Dotted lines" for full instructions.

To MOVE OR DELETE A STAFF OR SCORE EXPRESSION 8ᵛᵃ OR 8ᵛᵇ MARKING

• Click the tool (Score Expression or Staff Expression) that you used to create the marking.

• Click the measure (Score Expression) or note (Staff Expression) to which the marking was attached. Its handle appears.

• Drag the handle to move the marking. Select it and "nudge" it with the arrow keys for fine positioning. Select it and press Delete to remove it.

To DEFINE THE 8ᵛᵃ, 8ᵛᵇ, OR 15ᵐᵃ MARKING FOR PLAYBACK

To create an 8ᵛᵃ, 8ᵛᵇ, or 15ᵐᵃ marking that will play back, you'll have to define *two* expressions: Define an 8ᵛᵃ, 8ᵛᵇ, or 15ᵐᵃ marking to transpose playback, then define an *invisible* (or very small) marking to restore playback to the normal register.

• Click the tool (Score Expression or Staff Expression) that you used to create the marking. If you haven't yet placed the marking in the score, click any measure (Score Expression) or note (Staff Expression). When the palette appears, click the desired symbol, click Edit, click Playback, then skip to the instruction marked by the coda sign.

- Click the measure (Score Expression) or note (Staff Expression) to which the marking was attached. Its handle appears.
- CTRL-Shift–double-click the handle. The Playback Definition box appears.
- Click Transposition. In the Set To Value box, type 12. You're defining the playback to jump up an octave (12 half steps). (For an 8ᵛᵃ marking, type –12. For a 15ᵐᵃ marking, type 24.)
- Click OK or Select in each dialog box return to the score. This places the mark in the score. Now, create an expression to restore the playback to its original register.
- Click the measure (Score Expression) or note (Staff Expression) at which playback should be restored. The Score Expression or Staff Expression Selection box appears.
- Click Create. The Text Expression Designer appears. To create an invisible marking, don't type anything into the text box.
- Click Playback. The Playback Definition dialog box appears.
- Click Transposition. In the Set To Value box, type 0. You're restoring playback to the original register.
- Click OK, OK, then Select. A dialog box appears, allowing you to specify some playback and positioning parameters for the marking. For either a Staff or Score Expression, choosing Scale Play Start will allow you to drag the marking horizontally to specify exactly where the normal playback register is restored. Or, to specify the staves in which the marking appears, click "Staff List". Be sure to place this marking in the same staves as the original 8ᵛᵃ marking. (If the invisible marking is a Staff Expression, remember which note you attach it to. Otherwise, you may never find its handle again for removal or editing.)
- Click OK.

8vb See "8va/8vb."

Elapsed time If you need an accurate assessment of the real-time length of a section of music, the Mass Mover's Metatool 7 can help. The time displayed is based on the current tempo settings for the piece, including any tempo changes, ritards, and so on.

TO LEARN THE REAL-TIME LENGTH OF SELECTED MUSIC

- Click the Mass Mover Tool ⊞.
- Select the region whose real-time length you want to know. You can select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, or an entire staff by clicking to the left of it.
- While pressing the 7 key, double-click the highlighted area. A dialog box appears, displaying the amount of time that has passed from the beginning of the piece to the beginning of the selected region, the time that has passed from the beginning of the piece to the *end* of the selected region, and the total time of the selected region itself (all in thousandths of a second).
- Click OK.

Ending barlines See "Final barline."

Endings See "First endings," "Second endings."

Encapsulated PostScript (EPS)

Encapsulated PostScript (EPS) is a computer graphics format. Because an EPS file contains a full PostScript description of its contents, it prints with the greatest resolution possible on a PostScript device even if it's placed into another program. If you're using Finale in conjunction with a graphics, page-layout, or word-processing program (like PageMaker or Ventura Publisher), use this technique to transfer music from Finale.

TO CREATE AN EPS FILE

• Isolate the passage of your Finale file on a single page (see instructions below). The maximum EPS file size you can create is a full page. If the file you want to "capture" is more than one page long, you'll have to create a separate EPS file for each page.

• Choose Compile PostScript Listing from the File menu. The Compile PostScript dialog box appears.

• Click EPS File of Page, and enter the page number of the isolated passage.

• Click Compile. The Compile File Name dialog box appears where you can name the file. Click Compile in this dialog box and Finale *compiles* the file. Go to your graphics, page-layout, or word-processing program and import the graphic. (Consult the destination program's manual for instructions on importing EPS files.)

TO ISOLATE A PASSAGE ON A SINGLE PAGE

• Click the Page Layout Tool ▣ . Finale switches to Page View, if it's not already there.

• Click the page containing the passage you want included in the EPS file. The Page Layout window appears. The first step is to place the music to be exported so that it appears at the *beginning* of a page. If the music begins in the middle of a system, you'll need to force it to begin a new system. See "System (line) breaks." If the music already appears at the beginning of a page, skip to the instruction marked by the coda sign.

• Click Staff Systems. The outlines of the systems appear.

• Drag the bottom handle of the system just *above* the desired system *downward* until the desired system disappears from the bottom of the page. You can identify the system you're dragging by its number. The idea is to slide the preceding system down, little by little, until the desired system *just* vanishes from the page.

• Choose Recalc Music from the Page Layout menu.

• Click Next. You're now looking at the next page, with the target system at the top.

✦ Click Page Size.

• Drag the small square handle inward, to make the outline of the page smaller. Reduce the page size until it contains only the musical passage you want to export. Click Show Music to see how you're doing (click Show Music again to resume the page resizing). As the page shrinks, Finale will force more and more music off the *bottom* of the page, until there's nothing left on the page except the music you want to export.* Choose Recalc Music from the Page Layout menu from time to time so that you can check the effects your dragging is having on the measure widths.
You can also use Mass Mover to help force the measures you want included into one system (see "Measure layout").

• Make a note of the page number (for use in the Compile PostScript dialog box, above) and click OK.

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* You may also want to click Page Margins and reduce the page margins on all sides, so that the resultant EPS file won't have the default half-inch margins.

Enharmonics

There are several ways to change a note to its enharmonic equivalent: note by note, chord by chord, or even globally.

TO CHANGE A NOTE TO ITS ENHARMONIC EQUIVALENT

• Click the Speedy Note Entry Tool ▣ , and click the target measure. The editing frame appears.

• Press the directional arrow keys until the insertion bar and crossbar are positioned squarely on the notehead you want to change. You can also click the notehead with the mouse.

• Press the 9 key. Pressing the 9 key flips a note to its enharmonic equivalent. If you press 9 again while the crossbar is positioned on the changed notehead, the note will flip back to its original identity.

TO CHANGE A CHORD'S ENHARMONIC SPELLING

• Click the Speedy Note Entry Tool ▣ , and click the target measure. The editing frame appears.

• Press the right arrow key until the cursor is positioned on the chord you want to change. Press the Up or Down arrow key until the crossbar is *not* on a notehead. You can also click the chord with the mouse.

• Press the 9 key. Each time you press 9, Finale cycles to the next possible enharmonic spelling of the chord. If the chord contains several notes with accidentals, there are several possibilities.

TO CHANGE ALL OCCURRENCES OF A NOTE (SEARCH AND REPLACE)

If you want, you can change every occurrence of a note to its enharmonic equivalent— changing every G♯ to an A♭, for example.

• Click the Note Mover Tool ▣ , and click the measure containing the first occurrence of the note to be changed. A handle appears on each notehead.

• Click the handle of the note you want to change.

• Choose Search and Replace from the Note Mover menu. A dialog box appears, letting you specify additional criteria for the search-and-replace process. First of all, Finale wants to know if it should look for the selected note *only in its original octave* (click Notes). If it should search for the selected note *in any octave*, click Scale Tones. Furthermore, you can confine the search-and-replace process to notes of the same *rhythmic value* as the selected notes by clicking Scales+Durs (matching notes in any octave and with the same duration) or Notes+Durs (matching notes in the original octave and with the same duration).

With all of these options, Finale considers the selected notes' *scale degrees* when searching. For example, if you're searching for a C in the key of C, Finale won't consider C in the key of F a match. Instead, it will consider F a match in the key of F.

• Click the appropriate button. Another box appears, asking what sort of transposition you want applied.

• Click Enharmonic, then click OK. A new menu, Search, appears. Its commands are Find, which finds the next occurrence of a note matching your criteria; Replace, which replaces the currently selected note with its enharmonic equivalent; Replace then Find, which corrects the current note and then finds the next occurrence; and Replace All, which will read through your piece, measure by measure, in every staff, altering every note which meets your search criteria. This process may take some time.

• Choose Quit Search from the Search menu. Finale also offers a second method of its Search and Replace feature that doesn't require you to choose menu commands. To use this method, click the Note Mover Tool ▣ , click the measure containing the first occurrence of the note to be changed, and CTRL-click its handle. A special strip appears

at the top of the window, displaying the same commands found in the Special menu, but in button form. You can click these buttons instead of choosing the commands from the Search menu—a method you may find more efficient. Click the Set button to display the search criteria dialog boxes. Click Cancel to exit Search and Replace mode.

Enlarging See "Reducing/Enlarging."

EPS See "Encapsulated PostScript (EPS)."

Erasing You can erase any individual element of music from any specified region: lyrics, chord symbols, articulations, and so on, without removing any actual notes. You can also erase notes *and* all elements from the desired region.

TO ERASE EVERYTHING FROM A SELECTED REGION

• Click the Mass Mover Tool 🖾 .

• Select the desired region. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or choose Select All from the Edit menu to select the entire file. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling.

• Press the Delete key. A dialog box appears, asking whether you mean to *clear* all music from these measures, or to *delete* the measures themselves (which will leave the piece with fewer measures).

• Click Clear.

TO ERASE AN ENTRY (NOTE, REST, OR CHORD)

• Click the Speedy Note Entry Tool 🖾 and click a measure.

• Press the right arrow key until the insertion bar is on the entry to erase.

• Press Delete. The entire note, rest, or chord disappears, and the music that follows it slides to the left to fill the space. Alternate method: click the Simple Note Entry Tool 🖾 , click the Eraser Tool 🖾 , and click above or below the entry.

TO ERASE A NOTE FROM A CHORD

• Click the Speedy Note Entry Tool 🖾 and click a measure.

• Click the notehead you want to erase. You can also use the arrow keys to position the insertion bar and crossbar on the notehead.

• Press Backspace. Alternate method: click the Simple Note Entry Tool 🖾 , click the Eraser Tool 🖾 , and click directly on the notehead.

TO ERASE SELECTED ELEMENTS FROM A SELECTED REGION

• Click the Mass Mover Tool 🖾 .

• Select the desired region. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or choose Select All from the Edit menu to select the entire file. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling. When measures are selected, the Mass Edit menu appears.

• Choose Erase from the Mass Edit menu. A dialog box appears.

- **Click Only the Selected Items.** Measure items include markings and other data affiliated with measures (not attached to notes). They include:

✗ Score Expressions	Any expression marking you've created with the Score Expression Tool: Dynamics, rehearsal letters, tempo indications, and so on.
✗ Smart Shapes	Any of the intelligent expression markings located on the bottom of the Simple Note Entry Palette: The Over-slur or Under-slur, crescendo or decrescendo hairpins, 8va or 8vb brackets, and so on.
Repeats	• Repeat barlines or text repeats (such as "To Coda," "Second Time Only," and so on) created with the Repeat Tool.
Time Dilation	Special tempo modifications made with the Time Dilation Tool, or Time Dilation (ritard and accelerando) data you've captured from a performance in the Transcription Tool by clicking Capture Time Dilation.
Split Points	Any measure "split points"—places you've specified as permissible breaking points in a long measure that might straddle more than one staff system. (You create split points with the Measure Attributes Tool.)
Measure Arbitrary Music	Floating measures you've assigned to measures, in Scroll View only, with the Arbitrary Music Tool.
Measure Text Blocks	Text blocks you've assigned to measures, in Scroll View only, with the Text Block Tool.
MIDI Expressions	MIDI controller data (pedaling, aftertouch, pitch wheel usage, and so on) you've captured from a performance in the Transcription Tool by clicking Capture MIDI Xpression.

Entry items are markings, changes made with the Special Tools Tool, and other data attached to specific notes. They include:

Entries	The notes and rests themselves, and any attached expression marks, lyrics, chords, etc.
Note Head or Percentage Alterations	Reductions and enlargements of noteheads or groups of notes, as well as any repositioning of noteheads you've done by dragging them using the Notehead Tool (in the Special Tools window).
✗ Staff and Note Expressions	Articulations, single-staff dynamics, and other markings created with the Staff Expression or Note Expression tools.
Lyrics	Lyrics created with the Lyrics Tool.
Beam Extensions	Beam modifications created with the Beam Extension Tool, one of the Special Tools.
Secondary Beam Breaks	Beam modifications created with the Secondary Beam Break Tool, one of the Special Tools.
Tuplet Definitions	Tuplet definitions created with the Tuplet Tool or generated by any music input method. If you select this item, Finale will turn all tuplets into normal non-tuplet notes (even if the result is too many beats in the measures).
Stem and Beam Alterations	Stem and beam modifications created with the Special Tools Tool.
Entries in Other Staves	Cross-staff notation, created with the Note Mover Tool (referring not to the notes themselves, only their "cross-staff" status).
Chords	Chord symbols created with the Chord Tool.
Performance Data	Key velocity and Start and Stop Time data captured from a Transcription Tool performance.
Special Alterations	Changes to dots and ties made with the Special Tools Tool.

- Click Measures or Entries. A dialog box appears, listing the elements as shown on the previous page.
- Click each item you want to erase. You can select more than one.
- Click OK, once in each dialog box. Finale erases the selected items.

Exploding music

If you have notated a chordal or polyphonic passage, you can tell Finale to "explode" the passage onto individual monophonic staves. For example, you can write three trumpet parts on a single staff, notated as triads. When you're finished, Finale can explode that one staff into three individual trumpet staves, each with a single-line part.
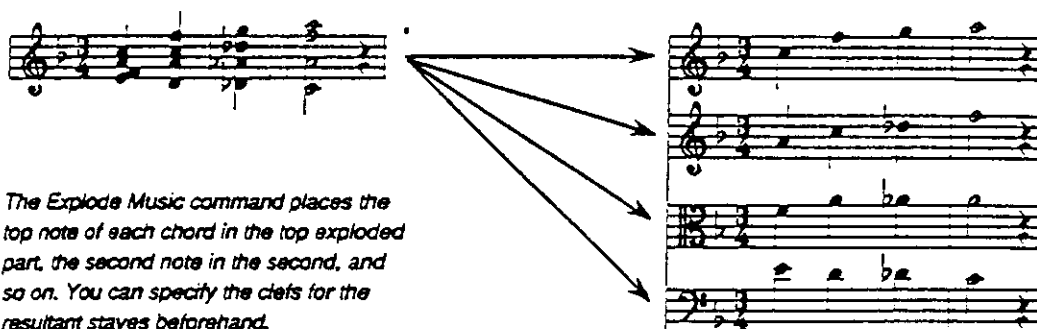
The Explode Music command places the top note of each chord in the top exploded part, the second note in the second, and so on. You can specify the clefs for the resultant staves beforehand.

TO EXPLODE MUSIC ONTO SEVERAL STAVES

- Click the Mass Mover Tool 🔯.
- Select the region to be exploded. You can select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, an entire staff by clicking to the left of it, or the entire piece by choosing Select All from the Edit menu.
- Choose Explode Music from the Mass Edit menu. The Explode Music dialog box appears, asking for more information.
- Enter the number of staves you want the music exploded onto in the Number of Splits box.
- Change the Overload Order, if you like. The Overload Order is the order in which "extra" notes are assigned to the resultant staves. For example, if you're exploding the music from a chordal passage into three staves, and one of the chords contains five notes, where should Finale put the extra two notes? Indicate the order you want extra notes distributed among the staves by entering a series of staff numbers in the Overload Order text box.

  If you left the default numbers in this box (12340000), Finale would distribute "extra" notes from the original five-note chord sequentially among the resultant staves. That is, it would notate the top *two* notes on the first exploded staff, the next *two* on the second staff, and the fifth (bottom) note on the third exploded staff. If the Overload Order was 11111111, however, Finale would place *all* the "extra" notes (the top *three* of the original five-note chord) on the top exploded staff. The remaining staves would receive one note each.

- Enter the desired clefs for the exploded staves, and click Use These Clefs. In Finale, each clef is numbered as follows: Treble (0), Alto (1), Tenor (2), Bass (3), Percussion (4), Treble Ottava Bassa (5), Bass Ottava Bassa (6), and Baritone (F clef) (7).

  If you're exploding a triadic passage onto staves for violin (treble), viola (alto), and cello (bass), you'd type 013 as the first three digits in the Use These Clefs box. (If you just want all exploded staves to begin with the default [treble], leave the Use These Clefs box unchecked, and ignore the numbers.)

- Click OK. Another box appears, asking whether Finale should create new staves to hold the exploded material (in which case they'll appear at the bottom of the score), or whether the exploded music should fall on existing staves—beginning with the top selected ("pre-explosion") staff.
- Click New if you want Finale to create new staves to hold the exploded music. Click Top if you want the music to fall on existing staves, beginning with the top selected staff (or staves). If you've selected a large amount of music, this process may take time. Be aware that Note and Staff Expressions on the source staff also appear in the resultant staves.

Exporting
This entry contains instructions for exporting graphics and printer files, as well as instructions for exporting a Finale file to another brand of computer also running Finale. For instructions on creating standard MIDI files, see "MIDI files." For information on copying music to other Finale files, see "Copying music." To find out how to export Encapsulated PostScript Files to other programs, see "Encapsulated PostScript (EPS)."

To EXPORT GRAPHICS
You can create three kinds of graphics from Finale: EPS files (see "Encapsulated PostScript [EPS])," compiled PostScript files (see "To export printer files," below), and screen shots (see "To export screen shots," below).

To EXPORT PRINTER FILES
If you work with a PostScript device, you may want to create *compiled PostScript* files—printer files that contain complete PostScript descriptions of the pages you prepared in Finale. The value of these files is that you don't need Finale to print them, and they take less time to print than files printed directly from Finale. If you go to an output service to print your Finale pieces, you don't have to take the Finale program disks with you. Take the compiled PostScript files and PETRU.PSF, and make sure you have access to a downloading program for PostScript fonts and files (see "Printing"). When it comes time to print, you must *download the PETRU.PSF font* to the device before you print the file itself.

- Prepare your Finale piece completely for printing.
- Choose Compile PostScript Listing from the File menu. A dialog box appears.
- Click From and enter the range of pages to be included in the Pages From and To boxes. If you want all the pages included, click All. At this point, you have several other printing options (see "Printing" and "Tiling pages"). You can also specify letter (standard) or legal size pages.
- Click Compile. Finale now asks you to name the PostScript file.
- Enter a filename and click Compile. Be sure to include the file extension ".PS" with your name.

To EXPORT SCREEN SHOTS
To export screen shots, you must have a screen shot utility program that runs under Microsoft Windows. Consult the utility's manual for information.

To EXPORT STANDARD MIDI SEQUENCER FILES
See "MIDI files."

To export Finale files to other computers

You can save Finale files as special text-only files called *ENIGMA Transportable Files*, or ETFs, which can be read by Finale running on other kinds of computers.

- Open the file you want to export.
- Choose Save As from the File menu. A dialog box appears, in which you can provide a name for the new file you're creating.
- Enter a name for the ETF you're creating. Click ENIGMA Transportable File. Be sure to add the file extension ".ETF" with your name.
- Click Save. You can transfer the ETF to another computer either by modem or by disk (if the source and destination computers can share disks).

Expressions See also "Crescendo/Decrescendo," "Dynamics," "Slurs."

There are three tools for creating and placing expression marks in Finale: the Note Expression Tool, the Staff Expression Tool, and the Score Expression Tool. (See also "Expressions: Note Expressions," "Expressions: Score Expressions," and "Expressions: Staff Expressions.")

The sets of symbols, expression marks, and shapes accessed by these tools are stored in *libraries*. Unlike many other music programs, which provide a permanent set of musical symbols that are always available to you, Finale gives you the option of *loading* your choice of symbol sets into each individual file. If you're scoring a big band piece, you may want to create a library full of fall-off, bend, and "doit" markings—but you certainly won't need those expressions when you write a string quartet. The File menu in Finale offers two commands: Load Library, for bringing expression marks into a file, and Make Library, for storing symbols you've created or modified in a separate library of their own, ready to be imported into future pieces.

Unless you've removed DEFAULT.MUS from the FINALE directory, a basic set of Note, Staff, and Score Expression markings are loaded when you create a new file. If the selection palette comes up empty when you're attempting to place an expression in the score, it's because DEFAULT.MUS (which came with the program) wasn't in place. You can remedy the situation by choosing Load Library from the File menu, locating the LIBRS directory, and double-clicking the correct libraries (NOTEEXPR.LIB for the Note Expression Tool, TEXTEXPR.LIB and SHAPEXPR.LIB for the Staff Expression and Score Expression Tools). But before you start Finale again, place DEFAULT.MUS in the FINALE directory so you won't have to repeat this process every time you start a new file.

Expressions: Note Expressions The Note Expression Tool 🔢 is used for articulation symbols, such as staccato, accent, or fermata markings. Each consists of a *single character* (letter) from any font. Most of the time, you'll want to use Finale's own Petrucci music font, in which all the characters are musical symbols. A complete list of Petrucci characters appears on the Quick Reference Card.

A Note Expression must be attached to a note: you can't insert one in an empty measure. It maintains its position relative to that note, even if you transpose the note. You can define a Note Expression for playback, whereupon it affects only the note it's attached to. (The Score and Staff Expressions, in contrast, remain in effect until counteracted by another such mark. For example, a *p* makes the playback soft until an *f* appears.) Some of the Note Expressions that come pre-loaded in DEFAULT.MUS have been defined for playback (the staccato and accent, for example).

If you have many articulations to place in the score, you'll save time by assigning each symbol to a Metatool (a keyboard equivalent). See "Expressions: Staff Expressions—To create Note, Staff, or Score Expression Metatools" below.

TO PUT A NOTE EXPRESSION IN THE SCORE

• Click the Note Expression Tool.

• Click on, above, or below the target note. The Note Expression Selection box appears.

• If you see the desired marking in the selection box, double-click it. You return to the score, and the marking is attached to the note.

• If you don't see the marking you want, click Create. The Note Expression Definition dialog box appears.

• Type the character that corresponds to the desired marking. Keep in mind that the character you type in the "Symbol" text box always appears in the 12-point System font, even if the character corresponds to a musical symbol in the Petrucci font. If you want to see how this character will actually appear in the score, click Set Font. The default font is Petrucci 24-point, but you can choose any font. (A complete list of the symbols and markings available in Finale's Petrucci music font appears on the Quick Reference Card, which also tells you what to type in order to produce each character.)

There are some other options in this dialog box that may interest you, too. Click Use Top Note if you want to "fasten" the marking to the top note of a chord (instead of the default, bottom note). Click Clone mark if you want to create a "stretchable" symbol like trill notation or rolled chord markings.

• If you want to define the Note Expression for playback, click Playback. A dialog box appears, letting you specify a playback definition (see "To define a Note Expression for playback," below). Click OK.

• Click OK or Select in each dialog box to return to the score. The marking is in place. Adjust its position if necessary (see "To move or delete a Note Expression," below).

If you have many articulations to put into a score, consider creating Metatools (keyboard equivalents) for your most commonly used symbols. Using a Metatool, you can bypass the dialog box and put a marking into the score with a single click. See "Expressions: Staff Expressions—To create Note, Staff, or Score Expression Metatools," below.

TO MOVE OR DELETE A NOTE EXPRESSION

• Click the Note Expression Tool.

• If the marking's handle isn't visible, click the note it's attached to.

• Drag the handle to move the marking. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the mark and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO DEFINE A NOTE EXPRESSION FOR PLAYBACK

• Click the Note Expression Tool. If you haven't yet placed the Note Expression in the score, click any note. When the palette appears, click the desired symbol and click Edit, then skip to the instruction marked by the coda sign.

• Click the note the marking is attached to. A square handle appears on the marking.

• Double-click the handle. The Note Expression Definition box appears.

✦ Click Playback. The Playback Definition box appears.

• Determine the playback effect by clicking Key Velocity Based or Time Based. A Key Velocity Based marking affects the velocity (volume) of its note. Accents, stress markings, and marcato markings are good examples. If you select Key Velocity Based, then the numbers you enter in the Top Note and Bottom Note boxes are MIDI velocity values. The values range from -127 to 127, where a negative number will make the affected note softer than unaffected notes, and a positive number will make the affected note louder.

A Time Based marking affects the timing and duration of a note. Staccato marks and rolled chord markings are good examples. A Time Based effect lengthens or shortens the affected note's duration by shifting its *attack point* forward or backward in time—a useful option for producing rolled chord effects. If you also select Alter Duration, the target marking shifts the affected note's *release point* instead—a useful option for staccato markings. If you select Time Based, the numbers you enter in the Top Note and Bottom Note boxes are in ENIGMA Durational Units, or EDUs. There are 1024 of these very fine rhythmic increments per quarter note. To create a Note Expression that affects the timing of a note, you should enter numeric values large enough to create a noticeable rhythmic difference on playback—256 (a sixteenth note) and higher.

* Specify the playback definition of the marking. You'll notice that there are two boxes here: Top Note and Bottom Note. These boxes come into play when you're attaching a Note Expression to a *chord,* because the top and bottom notes can have different values (Finale scales any middle notes proportionately). With this setup, you can create effects such as rolled chords.

You'll also notice that there's a Value is Fraction check box. If you're creating a value in fractional form (defining a staccato note to be ⅕ of its normal duration, for example), use the two Bottom Note boxes to enter the numerator and denominator (respectively) and click Value is Fraction. In this case, the Top Note box will be ignored. The Value is Fraction option only has an effect if you're creating a Time Based marking.

* Click OK or Select in each dialog box to return to the score.

TO ERASE NOTE EXPRESSIONS FROM A REGION

* Click the Mass Mover Tool 🖼 .

* Select the desired region. Select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, an entire staff by clicking to the left of it, or the entire piece by choosing Select All from the Edit menu. In any case, the Mass Edit menu appears.

* Choose Erase from the Mass Edit menu. The Items to Erase dialog box appears.

* Proceeding through the dialog boxes, click as follows: Only the Selected Items, Entries, Only the Selected Items, Staff and Note Expressions.

* Click OK, once in each dialog box.

TO COPY NOTE EXPRESSIONS

You can copy any musical elements—such as Note Expressions—from one passage to another. In this discussion, the "source measures" are those that currently contain the articulations, and the "target measures" are those to which you want to copy them.

* Click the Mass Mover Tool 🖼 .
* Choose Move Only from the Mass Mover menu.
* Choose Entry Items from the Mass Mover menu. The Entry Items dialog box appears.
* Select Staff and Note Expressions, and click OK.
* Select the source measures. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or use the Set Selection command from the Mass Mover menu to select a large region without scrolling.

* Drag the first source measure so that it's superimposed on the first target measure. If the first target measure is off-screen, scroll to it and CTRL-Shift-click the measure. Unless you drag to a region directly above or below the source measures, the How Many Times dialog box appears.

* Specify the number of times you want the articulations copied and click OK. Finale only copies articulations to notes that fall on the *same beats* as they did in the source measures. The articulations maintain their positions relative to the noteheads.

Expressions: Score Expressions

Score Expressions, created and placed in the score with the Score Expression Tool ✍ , are very similar to Staff Expressions (see "Expressions: Staff Expressions," below). The two tools share precisely the same libraries of Text and Shape Expressions, they use the same set of Metatools, and their dialog boxes are nearly identical. The fundamental difference is that Score Expressions can appear in, and affect the playback of, some or all staves at once, whereas a Staff Expression only appears in a single staff.

You place a Score Expression by clicking exactly where you want the expression to appear—even above an empty measure. Since this marking will affect every staff in the score, it's useful for rehearsal letters, tempo indications, and other markings that don't need to be directly attached to notes. After you choose the desired marking from the selection palette that appears, you encounter a dialog box with two important options: Individual Positioning and Staff Lists.

Under normal circumstances, the Score Expression Tool places a marking in *every staff*, at precisely the same position. Move any marking and the ones in all other staves move simultaneously. However, if you click Individual Positioning when placing the marking, the marking in each staff becomes independently movable. If you click Staff List, a table appears, listing every staff in the score and allowing you to click each staff you want to apply this marking to. In other words, you can specify a *subset* of the staves in which this marking appears. For a more complete discussion of Staff Lists, see Tutorial 6 in *Learning Finale*.

If, after placing a mark, you want to change its positioning mode (Individual Positioning or not) or its Staff List assignment, *Shift*-double-click its handle. The Expression Assignment box will appear.

For information regarding specific markings (tempo indications, crescendos, and so on), see their individual entries.

If you intend to make use of the Shape Expressions, here's an important tip. Assign each to a Metatool (see "To create Note, Staff, or Score Expression Metatools," below) before placing them in the score. Otherwise, you'll find that the shapes aren't *individually* reshapable.

TO CREATE A SCORE EXPRESSION

• Click the Score Expression Tool ✍ . Click where you want the marking to appear. (If there's already a Score Expression in the measure you clicked, its handle appears. Click again to create a new one).
   The Score Expression Selection box appears. If you're creating a Shape Expression, click Shape. Remember, if you intend to place *more than one* of the desired shape into the score, place it into the music using a Metatool (see "To create Note, Staff, or Score Expression Metatools," below).
   In any case, if the desired marking already appears in the list, click it and skip to the instruction marked by the coda sign.

• Click Create. The Text (or Shape) Expression Designer appears. To create a Shape Expression, click *Shape ID*, then click Create. The Shape Designer appears (see "Shape Designer"). Design your shape, click OK, then Select, then OK, and skip to the instruction marked by the coda sign.

• Type the Text Expression. Click Set Font to change the type style, then click OK.

• Click OK.

♦ Click Select. The Expression Assignment dialog box appears. Individual Positioning means that you can move this marking independently in each staff. If you don't click this

box, the positioning of this marking changes in all staves at once when you move any one of them.

If you click "Staff List", Finale displays a list of all staves in the piece. Click in the Score column so that a check mark appears across from the name of each staff in which you want the marking to appear. (You can also specify whether or not the marking will appear in a staff's *extracted part* by placing a check mark in the Part column. The check marks in the Part column also govern which staves' *playback* will be affected by this Score Expression.) When you're finished configuring the Staff List, click OK. For a more complete discussion of Staff Lists, see Tutorial 6 in *Learning Finale*.

- Click OK.

To MOVE OR DELETE A SCORE, EXPRESSION

- Click the Score Expression Tool 🗹.
- Click the measure to which the expression was attached. Its handle appears.
- Drag the handle to move the expression. Select it and press Delete to remove it. Once the handle is selected, you can also use the arrow keys to "nudge" the expression for fine positioning.

To DEFINE A SCORE EXPRESSION FOR PLAYBACK

See "Expressions: Staff Expressions—To define an expression for playback," below.

To ERASE SCORE EXPRESSIONS FROM A REGION

- Click the Mass Mover Tool 🗐.
- Select the desired region. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or choose Select All from the Edit menu to select the entire file. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling. In any case, the Mass Edit menu appears.
- Choose Erase from the Mass Edit menu. The Items to Erase dialog box appears.
- Proceeding through the dialog boxes, click as follows: Only the Selected Items, Measure Items, Score Expressions.
- Click OK, once in each dialog box.

To COPY SCORE EXPRESSIONS

In this discussion, the "source measures" are those that currently contain the expressions, and the "target measures" are those to which you want to copy them.

- Click the Mass Mover Tool 🗐.
- Choose Move Only from the Mass Mover menu.
- Choose Measure Items from the Mass Mover menu. The Measure Items dialog box appears.
- Select Score Expressions, and click OK.
- Select the source measures. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or choose Set Selection. command from the Mass Mover menu to select a large region without scrolling.
- Drag the first source measure so that it's superimposed on the first target measure. If the first target measure is off-screen, scroll to and CTRL-Shift-click it. Unless you drag to a region directly above or below the source measures, the How Many Times box appears.
- Specify the number of times you want the markings copied, and click OK.

Expressions: Staff Expressions

Staff Expressions, created and placed in the sₓ with the Staff Expression Tool ▣ , are very similar to Score Expressions. The two share precisely the same libraries of Text and Shape Expressions, they use the same se Metatools, and their dialog boxes are nearly identical. The fundamental difference is ɴ Staff Expression appears in, and affects the playback of, only one staff. A Score Express can affect several or all staves in the score. Staff Expressions, like Note Expressions, musᴵ be attached to a note (you can't place one in an empty measure).

There are two kinds of Staff Expressions: Text Expressions (*legato, arco, f,* and so on) and Shape Expressions (glissandi, slurs, hairpins, and so on). The Shape Expressions are created in the Shape Designer, Finale's built-in PostScript graphics generator. They print extremely well on PostScript devices.

It's a good idea to use the *Smart Shapes* in the Simple Note palette for slurs, hairpins, and dotted-line shapes. Not only do they produce the same high-quality printouts as Shape Expressions, but they're intelligent—they expand and contract along with the music they're assigned to, and they automatically break into two independent shapes if the main shape happens to straddle two staff systems (see "Crescendo/Decrescendo.")

If you intend to make use of the Shape Expressions, here's an important tip. Assign each to a Metatool (see "To create Note, Staff, or Score Expression Metatools," below) before placing them in the score. Otherwise, you'll find that the shapes aren't *individually* reshapable.

TO CREATE A STAFF EXPRESSION

- Click the Staff Expression Tool ▣ . Click on, above, or below the note you want to attach the marking to. The Staff Expression Selection box appears. If you're placing a Shape Expression, click Shape. Remember, if you intend to place *more than one* of the desired shape into the score, place it into the music using a Metatool (see "To create Note, Staff, or Score Expression Metatools," below).
  In any case, if the desired marking already appears in the list, click it and skip to the instruction marked by the coda sign.

- Click Create. The Text (or Shape) Expression Designer appears. To create a Shape Expression, click "Shape ID", then click Create. The Shape Designer appears (see "Shape Designer"). Design your shape, click OK, then Select, then OK, and skip to the instruction marked by the coda sign.

- Type the Text Expression. Click Set Font to change the type style, then click OK.

- Click OK.

- ↻ Click Select. The Expression Assignment dialog box appears. You'll rarely make changes to this box, so in most cases you can just click OK. However, there are some useful options here. Click Offset from Bottom Note (to select it) if you want the marking positioned relative to the *bottom* note of a chord, so that it maintains its distance from the bottom note. In other words, if you change the pitch of the bottom note, or add a lower pitch to the chord, the marking adjusts to the new pitch. If you don't select this option, the mark will be positioned relative to the *top* note of the chord.
  There's also an option called Scale Play Start ("scale" is a verb here). You usually hear the playback effect of a Staff Expression at the moment Finale reaches the note to which it's attached. By selecting Scale Play Start, you can tell Finale to execute the playback effects of the mark *according to its horizontal position* in the measure. In other words, you can make the playback effect take place slightly later or earlier by *dragging* the marking. And finally, if you've assigned Output Routes to your staves (see "MIDI Channels"), you can choose the element of the music you want this Staff Expression to affect: Layer 1, Layer 2, Chord (symbols), or Expression(s).

- Click OK. The marking appears in the score.

- Enter a new Level Scale, if necessary. The Level Scale is also a ratio. Instead of determining how *long* the Executable Shape's effect will last, the Level Scale determines *how much* change you'll hear (in the MIDI parameter you've specified). When you design your shape, each *horizontal* gridline crossed by your shape represents *one* change in MIDI value: a tempo change from 60 to 59 beats per minute, a MIDI key velocity change from 120 to 121, a transposition down one half step. By changing the Level Scale, you can multiply that number to create more dramatic changes in the playback effect. For a ritard, you might want to specify a Level Scale of 10:1, so that the tempo drops by 10 beats per minute for each horizontal gridline crossed by your shape.

- Click OK if the mark was already placed in the score. Otherwise, click OK or Select in each dialog box to return to the score. Listen to the effect of your Executable Shape. Can you even hear your ritard in playback? If not, try increasing the Level Scale ratio. Is your crescendo too brief? Then increase the Time Scale ratio. If you're still puzzled, examine one of the predefined Text or Shape Expressions that use Executable Shapes: the crescendo hairpin, for example, or the *rallentando* expression.

To Create Note, Staff, or Score Expression Metatools

When you have many articulations or expression marks to place in your score, you can bypass all the dialog boxes and button-clicks required in the expression-placing procedures described above with the use of Metatools. A Metatool is simply a keyboard equivalent for a certain expression marking. You use the number keys, 1 through 8, on your keyboard, so you can have eight Note Expressions and eight Staff/Score Expressions at a time.

Furthermore, Staff and Score Expression Metatools are extremely important if you want to place *more than one* of any particular *Shape Expression* into the score. If you *don't* place them into the score using Metatools, you'll find that the shapes aren't individually reshapable.

- Click the tool you'd use to place the desired marking in the score: the Note Expression 🔲, Staff Expression 🔲, or Score Expression Tool 🔲.
- While pressing CTRL, press any number key, 1 through 8. The number key you press is the Metatool number you're assigning the marking to. The selection box appears. If the marking isn't present in the palette, you can create it (see the preceding entries for instructions on creating Note, Staff, or Score Expressions).
- Double-click the desired marking. Click OK or Select in each dialog box to return to the score. You've successfully prepared the Metatool for use. Here's how to place the marking in the score. Make sure the proper tool is selected.
- While pressing the appropriate number key, click where you want the marking to appear. (Keep in mind that you must click on, above, or below a note to place a Note or Staff Expression.) The marking appears in the score.

  Remember to use this Metatool technique *all the time* if you plan to place Shape Expressions into the score. Doing so will ensure that each occurrence of a shape is individually reshapable, because each time you use a Metatool, it creates a *copy* of the original shape. Otherwise, when you change one shape, you automatically change every occurrence of that shape.

Extracting parts
Finale offers you three ways to extract parts: Special Part Extraction, which uses Page View to display the extracted part (while Scroll View still contains the full score); Split Orchestral File, which creates a separate Finale file for each part; and Print Parts, which causes each part to be printed immediately (note that if you choose this option you won't have a chance to edit the parts before they print).

Before extracting any parts, you must load a multimeasure rest library into the full score. This library contains a selection of *shapes* for multimeasure (block) rests. When an instrument doesn't play for more than one measure, Finale will group the silent measures together into such a block rest.
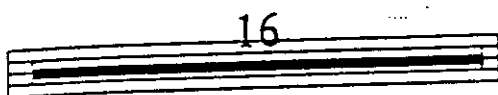
Finale automatically breaks up block rests at key or time changes, double barlines, repeat barlines or text repeats, any "real" whole rest (a whole rest you entered, not the default whole rests that appear in any measures left empty), or any measure whose barline has been made a "Light Line." (To access the barline options, double-click a barline's handle with the Measure Attributes Tool 🔲.)

For a more complete discussion of part extraction, see Tutorial 8 in *Learning Finale*.

To LOAD MULTIMEASURE REST SHAPES INTO A SCORE

• Choose Load Library from the File menu. A list box appears.

• Locate the LIBRS directory, and double-click MEASREST.LIB. You have just loaded the necessary shapes for the multimeasure ("block") rests.

To EXTRACT PARTS USING SPECIAL PART EXTRACTION

• Click the New Staff Tool 🔲 . Click the handle of the part you want to extract. If you're extracting a piano part, you can highlight both staves' handles.

• Choose Special Part Extraction from the Edit menu. A dialog box appears, asking you which Multimeasure Rest shape you want to use.

• Click *Shape ID*. A palette of the shapes you've loaded into this file appears. (See "To load multimeasure rest shapes into a score," above.)

• Click the desired multimeasure rest shape. The first block rest produces excellent results on a PostScript device but will look slightly misaligned on the screen. Use the second block rest if you are not printing with a PostScript device.

• Click Select.

• Set the font and position for the multimeasure rest number. Set the font and style for the number that appears over the rest by clicking Set Font. Set the position of this number by entering a value in the Descent field. The descent is measured from the top line of the staff (whose value is zero), so the larger the Descent value—measured in EVPUs, of which there are 288 per inch—the lower the number will be positioned.

• Click OK. If you later change your mind about any of the settings you just made—the rest shape or the font and position of the number—choose Special Part Extraction again from the Edit menu to turn it *off*. Then repeat these instructions from the first step.

• Choose Page View from the View menu. Page View now contains the extracted part, which you can edit as desired. Any page layout changes that you make to the part will also affect the full score.

• Choose Print Score from the File menu to print the part. For a more complete discussion of Special Part Extraction, see Tutorial 8 in *Learning Finale*.

To EXTRACT PARTS INTO INDIVIDUAL FILES

• Choose Parameters from the Special menu. The Parameters box appears.

• Click *Shape ID*. A selection box appears, displaying any multimeasure rest shapes you have loaded. (See "To load multimeasure rest shapes into a score," above.)

• Double-click the desired multimeasure rest shape. The first block rest produces excellent results on a PostScript device but will look slightly misaligned on the screen. Use the second block rest if you are not printing with a PostScript device.

- Set the font and position for the multimeasure rest number. Set the font and style for the number that appears over the rest by clicking Set Font. Set the font and click OK. Set the position of the number by entering a value in the Descent field. The descent is measured from the top line of the staff (whose value is zero), so the larger the Descent value—measured in EVPUs, of which there are 288 per inch—the lower the number will be positioned.

- Click OK.

- Save and close the full score file.

- Choose Split Orchestral File from the File menu.

- Double-click the full score file. The Split Orchestral File box appears.

- Specify the range of staves you want extracted by clicking the arrow buttons. The two upper buttons control the "From" number (or staff name, if there is one), and the two lower buttons control the "To" number (or staff name). Click the buttons until the names or numbers in the From and To indicators correctly describe the range of staves you want extracted.

- Enter a pathname (including a filename) for the resultant files. Finale proposes the present pathname with the beginning characters of the full score's filename, followed by a number sign (#), followed by the file extension ".MUS". The number sign will be replaced by the two-digit staff number of the extracted part (01, 02, etc.). You must include a number sign just before ".MUS". If you click Asking the User, Finale will pause between each file to ask you to name the next one. *

- Choose the split basis by clicking Staves or Groups. If you leave Staves selected, Finale will place *each staff* into its own extracted part file, even if that means that the treble-clef and bass-clef staves of a piano part result in two separate files. If you click Groups, any staves that have been grouped together (such as keyboard or harp parts) will be extracted together. Any single-staff instruments that have not been grouped won't be extracted at all.

- Leave Compress Files checked, if desired. The Compress Files option takes longer, but results in smaller files. If you want to save time, uncheck Compress Files, but be aware that each resultant file will require almost as much disk space as the full score file.

- Click OK. Finale now presents a large dialog box, letting you specify *different* formatting than the full score file.

- Specify the Page Boundaries and Margins, and the System Margins (if necessary). The Page Boundary numbers define the page size as measured from the bottom left corner, in EVPUs (288 per inch). Thus, to specify an 8B by 11 sheet of paper, the numbers in these boxes should be as follows: Top—3168 (that's 11 inches), Left and Bottom—0, Right—2448 (that's 8B inches). (The default values are those that were set in the full score file.)

  The numbers in the Page Margins boxes, also measured in EVPUs, define the margins. A half-inch margin all the way around the page has the following measurements—Top and Right: –144; Bottom and Left: 144. The System Margins represent the distance from the *edge* of each system to the *page* margins. All are initially 0 except the Bottom, which defaults to –200 (referring to the space between systems). See also "Page layout."

- Specify the percentage reduction (Page Percentage), and any special formatting for the first page and system. If you want the first line of music to appear indented, enter a larger EVPU value in the First System Indent box. If you want the first line of music to appear lower on the first page, enter a value that's lower (that is, a larger *negative* value) in the First System Drop box. You can also lower the first *page* top margin (First Page Drop). Your headers and footers, however, are attached to this margin. So, if you want to move the music down on the page, do so by increasing the First System Drop. You can also

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* In the unlikely event that a file about to be generated has the same name as an existing file in the same directory, Finale will not alert you before replacing the older file with the new one.

specify the distance between systems (Top Staff) and the distance between the staves of each system (Between Staves). Check New Distances if you change these numbers.

- Specify any page layout elements you want added to or removed from the parts. For example, you may want the instrument name to appear at the top of each page as a header. Click Staff Name Headers to bring up a dialog box, letting you specify their position and font setting. If you do so, you may then want to remove the instrument's name from the individual staves (for Items to Strip, click Staff Names). You can also remove text blocks or headers/footers assigned to page 1 (Page 1 Text Blocks, Page 1 Headers/Footers) or to every page but page 1 (Page 2+ Text Blocks, Page 2+ Headers/ Footers), and you can remove any Global Headers/Footers.

- Click OK. Finale will generate an individual Finale file for each part, according to your specifications. Allow plenty of time for Finale to complete the task, especially with large files, and make sure there's room on the hard disk to hold them.

To REFORMAT AND PRINT EXTRACTED PARTS

With separate files for each part, you can make and save changes independently.

- Open an extracted part file.
- Choose Special Part Extraction from the Edit menu (to uncheck it).
- Make changes. Use Mass Mover Metatool 3 or 4, for example, to respace the music according to an allotment library.
- Using the New Staff tool (in Scroll View), choose Select All.
- Choose Special Part Extraction from the Edit menu (to recheck it), and click OK.
- Choose Save from the File menu, then choose Print Score from the File menu to print the part.

To PRINT EXTRACTED PARTS DIRECTLY FROM THE SCORE

This option is fast and simple but it gives you no part-by-part formatting powers. The measure widths in the score are the measure widths you'll get in each extracted part, making it useful for pieces in which the measures have a uniform width.

- Choose Print Parts from the File menu. A dialog box appears, asking you which multimeasure rest shape you want to use.
- Click *Shape ID*. A palette of the shapes you've loaded into this file appears. (See "To load multimeasure rest shapes into a score," above.)
- Click the desired multimeasure rest shape. The first block rest produces excellent results on a PostScript device but will look slightly misaligned on the screen. Use the second block rest if you are not printing with a PostScript device.
- Click Select.
- Set the font and position for the multimeasure rest number. Set the font and style for the number that appears over the rest by clicking Set Font. Set the position of this number by entering a value in the Descent field. The descent is measured from the top line of the staff (whose value is zero), so the larger the Descent value—measured in EVPUs, of which there are 288 per inch—the lower the number will be positioned.
- Click OK. The printing dialog box appears as usual, and Finale proceeds to print the parts, one by one.

Fall-off While a fall-off is musically not the same thing as a glissando, the technique Finale uses to produce an adjustable slanted line attached to a notehead is the same. See "Glissando."

Feathered beaming See "Beaming: Feathered beaming."

Fermatas The fermata, or hold (⌒ or ⌣), is a Note Expression. If you've loaded a Note Expression library into your file (or if DEFAULT.MUS is in place), you won't have to create the symbol.

There may be cases in which you want to create the fermata as a Staff Expression or Score Expression. If you want the fermata to appear in every part, enter it as a Score Expression. If you want the playback to be affected by a fermata, define it as a Staff Expression or Score Expression, because Note Expressions can't access an *executable shape*, which the fermata playback needs to follow.

TO PUT A FERMATA ON A NOTE (NOTE EXPRESSION)

- Click the Note Expression Tool ⑤ .
- Click on, above, or below the note. The Note Expression Selection box appears.
- If you see a fermata in the selection box, double-click it. You return to the score, and the mark is attached to the note.
- If you don't see a fermata in the selection box, click Create. The Note Expression Definition dialog box appears.
- Type Shift-U. In the Petrucci music font, Shift-U is the fermata ⌒. For the inverted fermata ⌣, type U without pressing Shift (a lower-case u).
- Click OK, then Select to exit the dialog boxes.

TO COPY NOTE EXPRESSION FERMATAS

See "Expressions: Note Expressions—To copy Note Expressions."

TO PUT A FERMATA IN MANY STAVES AT ONCE (SCORE EXPRESSION)

- Click the Score Expression Tool ☑ .
- Click on, above, or below the measure in which the fermata is to appear. The Score Expression Selection box appears. If you've previously created the fermata, it will appear in this box. Click it and skip to the instruction marked by the coda sign.
- Click Create. The Text Expression Designer appears.
- Type Shift-U. Or type a lower-case u for an inverted fermata ⌣.
- Click Set Font and change the font to Petrucci 24-point. Click OK to exit the font selection box, and click OK again.
- Click Select. In the box that appears, you can specify Individual Positioning (which allows you to move each staff's fermata independently) or Staff List (which allows you to specify a subset of staves in which the fermata is to appear). If you plan to define the Fermata for playback, also click Scale Play Start.
- Click OK. You can also use this process to create a Staff Expression fermata (which will only appear in one part). Since the Note Expression route is much simpler, you should use the Staff Expression method only if you want to define the fermata marking for playback.

TO MOVE OR DELETE A FERMATA

- Click the tool you used to create the fermata (Note Expression Tool ⑤ or Score Expression Tool ☑).

- If the fermata's handle isn't visible, click the note (or measure) to which it was attached.
- Drag the handle to move the fermata. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the fermata and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO DEFINE A FERMATA FOR PLAYBACK

Only the Score (or Staff) Expression fermata can affect playback.

- Click the Score Expression Tool ☑ . If you've already placed the fermata in the score, click the measure in which it appears. CTRL-Shift-double-click the fermata's handle, and skip to the instruction marked by the coda sign.
- Click any measure. The Score Expression Selection palette appears.
- Click the fermata, then click Edit. The Text Expression Designer appears.
- Click the word Playback. The Playback Definition box appears.
- Click Tempo, then click Execute Shape. Proceeding through the dialog boxes, click as follows: Create, *Shape ID*, Create. You're now in the Shape Designer.
- Type –288 into the Y text box (leave X at 0), and click the Line Tool ☑ .
- Type 144 into the X text box, and 0 (zero) into the Y text box. Click the Line Tool ☑ again. You've just created a graph of the tempo, which will be executed by the fermata. The graph looks like a half-V so the tempo immediately drops well below normal; then, during the hold, the tempo eases back to speed, reaching normal tempo in time for the next note. (This particular fermata works best when the rhythmic value is that of an eighth note or larger.)
- Click OK, then Select to exit the Shape Designer.
- In the Time Scale boxes, enter 1:4. In the Level Scale boxes, enter 22:1. The Time Scale specifies *how long* the executable shape (not necessarily the *fermata*, though) will last. The higher the second number, the smaller the rhythmic value affected. The Level Scale controls *how much*, or how deep, the tempo fluctuation will be (how long the fermata will be held). Be aware, however, that if the first Level Scale number *multiplied by 8* exceeds the current tempo by more than a small amount, you'll get unexpected playback results, as explained below.

  The fermata works by abruptly dropping the playback speed (tempo) to a very low number, then bringing the tempo back to speed. If the tempo dips much below zero, however, playback may halt entirely. For this particular fermata, then, don't enter a Level Scale which, when multiplied by 8, exceeds the current tempo. You typed 22 here, which works well for any tempo above 96 beats per minute. For 60 beats per minute, don't enter any Level Scale higher than 9:1. For a more complete discussion of Time and Level Scales, see "Rallentando."
- Click OK or Select in each dialog box to return to the score.

15ma (quindicesima)   See "8va/8vb."

Final barline

TO CREATE A FINAL BARLINE

- Click the Measure Attributes Tool ▦ . A handle appears on each barline.
- Double-click the barline you want to make into the final barline. (If there are two handles, double-click the top one.) The Measure Attributes dialog box appears.
- Click Solid Bar and Light Line. Click OK.

- If the fermata's handle isn't visible, click the note (or measure) to which it was attached.
- Drag the handle to move the fermata. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the fermata and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO DEFINE A FERMATA FOR PLAYBACK

Only the Score (or Staff) Expression fermata can affect playback.

- Click the Score Expression Tool ⊡. If you've already placed the fermata in the score, click the measure in which it appears. CTRL-Shift-double-click the fermata's handle, and skip to the instruction marked by the coda sign.
- Click any measure. The Score Expression Selection palette appears.
- Click the fermata, then click Edit. The Text Expression Designer appears.
- Click the word Playback. The Playback Definition box appears.
- Click Tempo, then click Execute Shape. Proceeding through the dialog boxes, click as follows: Create, *Shape ID*, Create. You're now in the Shape Designer.
- Type –288 into the Y text box (leave X at 0), and click the Line Tool ⊡.
- Type 144 into the X text box, and 0 (zero) into the Y text box. Click the Line Tool ⊡ again. You've just created a graph of the tempo, which will be executed by the fermata. The graph looks like a half-V so the tempo immediately drops well below normal; then, during the hold, the tempo eases back to speed, reaching normal tempo in time for the next note. (This particular fermata works best when the rhythmic value is that of an eighth note or larger.)
- Click OK, then Select to exit the Shape Designer.
- In the Time Scale boxes, enter 1:4. In the Level Scale boxes, enter 22:1. The Time Scale specifies *how long* the executable shape (not necessarily the *fermata*, though) will last. The higher the second number, the smaller the rhythmic value affected. The Level Scale controls *how much*, or how deep, the tempo fluctuation will be (how long the fermata will be held). Be aware, however, that if the first Level Scale number *multiplied by 8* exceeds the current tempo by more than a small amount, you'll get unexpected playback results, as explained below.

  The fermata works by abruptly dropping the playback speed (tempo) to a very low number, then bringing the tempo back to speed. If the tempo dips much below *zero*, however, playback may halt entirely. For this particular fermata, then, don't enter a Level Scale which, when multiplied by 8, exceeds the current tempo. You typed 22 here, which works well for any tempo above 96 beats per minute. For 60 beats per minute, don't enter any Level Scale higher than 9:1. For a more complete discussion of Time and Level Scales, see "Rallentando."
- Click OK or Select in each dialog box to return to the score.

15ma (quindicesima) See "8va/8vb."

Final barline

TO CREATE A FINAL BARLINE

- Click the Measure Attributes Tool ⊞. A handle appears on each barline.
- Double-click the barline you want to make into the final barline. (If there are two handles, double-click the top one.) The Measure Attributes dialog box appears.
- Click Solid Bar and Light Line. Click OK.

Figured bass You can create figured bass symbols with the same Finale tools you'd use to create fingerings (see "Fingering numbers").

You may prefer to create them as *chord symbols*, because chord suffixes in Finale also allow you to "stack" numbers on top of each other within a single suffix. As you define each chord symbol, remember to "deselect" the Root check box in the Chord Definition dialog box, so that the letter name itself doesn't appear in the chord symbol. In other words, create the suffix (§, for example) without the root letter name (C, for example).

Fingering numbers Numbers added to a part to indicate fingerings are Note Expressions. A note or chord can have as many Note Expressions as you want.

One of the easiest ways to put fingerings into a score is with the use of Metatools. For example, assign the numbers 1 through 5 to Note Expression Metatools 1 through 5 (see "Expressions: Staff Expressions—To create Note, Staff, or Score Expression Metatools").

To ADD A FINGERING NUMBER OVER A NOTE

- Click the Note Expression Tool ⬚.
- Click above or below the note where you want the fingering number to appear. The Note Expression Selection box appears. If you have already created the number, double-click it. You return to the score, and the number is attached to its note.
- Click Create. The Note Expression Definition dialog box appears.
- Type the number. Click Set Font to set the font and size of the number. (If you want to use the fingering numbers in the Petrucci music font, see the Quick Reference Card.)
- Click OK or Select in each dialog box to return to the score.

To MOVE OR DELETE A FINGERING NUMBER

- Click the Note Expression Tool ⬚.
- If the number's handle isn't visible, click the note it is attached to.
- Drag the handle to move the number. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the number and it still appears to be on the screen, choose Redraw Screen from the View menu.

To COPY FINGERINGS (AND OTHER ARTICULATIONS)

See "Expressions: Note Expressions—To copy Note Expressions."

First endings See also "Second endings."

You create a first ending with the Repeat Tool. It can be purely graphic or it can be functional, accurately directing the MIDI playback.

If you decide to create a functional first ending, you'll actually have to create *two* Finale "repeats," as shown here.

First repeat barline
(directs playback to beginning)

Second repeat barline
(directs playback to second ending)

TO CREATE A FIRST ENDING

- Click the Repeat Tool 🗐 , then click the first ending measure. If the first ending is
  more than one measure, click its *last* measure. The Repeat Selection dialog box appears.
- Double-click the Backward Repeat with Bracket icon 🗐 (the third icon at the top of the
  dialog box). The Backward Repeat Bar Assignment box appears, asking for details about the
  playback definition of this repeat barline. If you don't intend to use this barline's
  playback function, skip the next two steps.
- Enter the target measure number in the Target Measure box. The Target Measure is the
  measure played after the first ending—it's the measure to which playback should
  jump. (The Target Measure can be *any* measure.)
- Click Always Jump. You selected the Always Jump option because the repeat you're
  creating—the barline at the end of the first ending—will only have its playback effect
  the first time the music reaches it. Thereafter, playback skips over it, because the repeat
  you'll create in a moment will be responsible for diverting the playback to the second
  ending when it reaches the *beginning* of the first ending. The point is that you don't
  really want this barline to always repeat the music but, after the first time through,
  playback won't encounter this barline again.

  In some rare circumstances—if the coda of the piece begins *within* a first ending, or you
  have a configuration of nested repeats in which a repeat barline falls within a first
  ending—it's conceivable that you might want to define this barline differently. By
  clicking Repeat Until Total Passes and entering a number in the Total Passes Box, you
  can specify the number of times the repeat barline affects the music, after which it will
  allow the music to "play through it" without jumping to another measure.

- Click OK. You've created the "right end" of the first ending—the one that directs the
  playback flow back to the beginning (or some other designated spot). Now you need to
  create the *beginning* repeat, which will direct playback to the second ending.
- Click the first ending measure again. If the first ending is more than one measure long,
  click the first measure of it. The Repeat Selection box appears.
- Double-click the Multiple Ending Repeat 🗐 . The Ending Repeat Bar Assignment box
  appears.

  If you don't intend to use this barline's playback function, skip the next two steps.

- Enter the measure number of the second (or final) ending in the Target Measure box.
  When the playback reaches the beginning of the measure you clicked, it will jump to the
  second ending.
- In the Total Passes box, type 1. You entered a 1 because you want Finale to play the
  ending only once (the first time). Thereafter, playback should jump to the second ending.
  The number you enter in the Total Passes box is also the number that will appear under
  the first ending bracket in the score, like this: 1. If you want to specify some *other* text to
  appear under the bracket—if you prefer a period after the ending number like this: 1.—
  enter it in the Ending Text box (both number and period). If this is a first, second, and
  third ending, click Multiple. A dialog box appears, letting you specify *multiple* Total
  Passes values—in this example, 1, 2, and 3. Once again, Finale will automatically place
  these numbers under the first ending bracket in the score, like this: 1, 2, 3 (separated by
  commas), unless you've entered text in the Ending Text box.

... OK. Both "repeats" are in your score. If you drag the square handles carefully, you ... align the open ends of the two brackets so that they appear to be a continuous ... bracket, as shown below.

By dragging the handles of the repeat bracket in each measure (top), you can ... the brackets' heights so that they appear to be a single continuous ... (bottom). Note that you can eliminate the "hook" of the left repeat ... by dragging the lowest handle upward.

TO ADJUST OR DELETE A REPEAT BARLINE OR BRACKET

- Click the Repeat Tool ▣ , then click the target measure. Handles appear at the ends of each bracket and barline.
- To lengthen, shorten, raise, or lower a bracket, drag its handles. To delete a repeat barline and its bracket, click the bottom barline handle and press Delete.

TO CHANGE A REPEAT BARLINE'S PLAYBACK DEFINITION

- Click the Repeat Tool ▣ , then click the target measure. Handles appear at the ends of each bracket and barline.
- Double-click any handle. The Bar Assignment (playback definition) box reappears. After you've made your changes, click OK.

Flags See also "Stems."

You have considerable control over the flags on single eighth notes (and smaller values) in Finale. The typical use for these parameters is to adapt a music font to Finale other than Coda's Petrucci font or Sonata from Adobe. Because different fonts use different spacing and positioning schemes for the positioning of their music characters, you may need to adjust some of these variables in order to accommodate a different music font.

To CHANGE THE CHARACTER ASSIGNMENT FOR A FLAG

- Choose Music Characters from the Special menu. A dialog box appears.
- Click the flag element whose character you want to change. First Up Flag is the flag on a single, stem-up eighth note. First Down Flag is the flag on a single, stem-down eighth note. Second Up and Down Flags are any additional flags on the same note—the sixteenth note flag, thirty-second note flag, and others. When you click the element's name in asterisks—*First Up Flag*, for example—a palette of every available character in the font appears. (To change the font whose characters you're viewing, choose Font Selection from the Special menu and click the Music button.)
- Double-click the replacement character. Whichever character you select will now appear at every occurrence of that flag in this file.
- Click OK.

TO ADJUST THE POSITIONING OF FLAGS

Once again, these options are most useful when you're making accommodations for a non-Petrucci music font.

- Choose Music Characters from the Special menu. A dialog box appears.
- Click Stroke or At Origin.y. Adjust the Flag Offset. Stroke determines on which side of the notehead Finale draws the flag (leave the box checked for the Petrucci 24-point font. Finale unchecks it for the Sonata font). At Origin.y determines whether or not the flag is drawn from the baseline of the note. Again, leave the box checked for Petrucci 24-point. The Flag Offset, which determines the vertical position of the secondary flags relative to the primary flag, should be 2 for Petrucci 24-point and 7 for all other fonts.
- Click OK.

Flutter tongue

The notation for flutter tonguing (flute and other instruments) varies. You can place the "f.t." notation into the score as a Staff Expression (see "Expressions: Staff Expressions") or use the wavy trill line to indicate its duration (see "Trills").

Fonts

Any symbol, word, or musical element in Finale can be from any font. Within lyrics and text blocks, you can even have different font treatment for each character.

Finale's music font is called Petrucci, named for Ottaviano Petrucci, the sixteenth-century Italian who was the first to use movable type for printing polyphonic music. Petrucci comes in 4 sizes for screen viewing and dot-matrix printing: 24, 18, 14, and 12. Viewing at 100%, you see 24-point Petrucci on the screen. Likewise, at 75% you see 18-point; at 62% you see 14-point; and at 50% you see 12-point. If you print on a PostScript device, you can choose any size Petrucci—or use the standard size at any reduction—and you'll still get perfectly smooth printouts. That's because a PostScript device doesn't use the installed screen fonts at all. It uses a special printer-language version of the Petrucci font (PETRU.PSF) that the Finale Installer placed in your FINALE directory. This file must be in your FINALE directory in order to print to a PostScript device.

Finale stores a *font list* with each file created. The font list contains the fonts that were available to Finale *when the file was created*. If you notice that some font names are *dimmed* in the font selection boxes of a certain file, it's because those fonts were present when the file was created (or previously edited) but are no longer installed. To update a file's font lists, see "To eliminate dimmed font names from a file's font lists," below.

Additional discussions of fonts and font selections appear in individual entries, such as "Lyrics," "Flags," "Noteheads," "Expressions," "Annotative text," and so on.

TO ELIMINATE DIMMED FONT NAMES FROM A FILE'S FONT LISTS

This procedure removes dimmed font names from a file's font selection boxes.

- Choose Data Check from the Edit menu. The Data Check dialog box appears.
- Click Check System Fonts Against Piece Fonts, then click Do Selected Action. Another box appears, offering three methods of handling the missing fonts. If you want every occurrence of a now-absent font switched to an available font, click Switched. If you're sure that the absent fonts (dimmed in the font selection boxes) weren't actually used in this piece, click Deleted. (If you delete a font that was used in this piece, you may get unexpected results.) You can also combine the two options by clicking Both. You'll have the option of switching each absent font to an available font. after which Finale will delete the absent font from the list.

- Click Switched, Deleted, or Both. If you click Switched or Both, the name of the first missing font appears in the top part of a font selection box. Double-click the name of a font that *is* currently installed. Any text that was created with the absent font will now appear in the font you double-clicked. Finale continues to present the names of missing fonts, one by one, giving you the opportunity to switch each of these to an available font.

- Click Done.

To GLOBALLY CHANGE A MUSICAL ELEMENT'S FONT

With this technique you can change the font for a single element of the music, such as the clefs or the notes themselves. If you want to change *all* elements of the music to a different font, see "To change music fonts," below.

- Choose Font Selection from the Special menu. A dialog box appears, with buttons for various elements of the file. The Music button refers to the font used for the notes, rests, accidentals, and other musical symbols. If you use this button to substitute a music font of your own design, you'll need to make some adjustments using the the Music Characters command in the Special menu as well. (Finale makes the necessary adjustments automatically if you specify Petrucci or Sonata as your default music font.) Key means Key Signature; Time means Time Signature; Clef is the selection of clefs; T Block sets the primary font for any text blocks you create; Verse, Chorus, and Section set the primary font for those respective elements of your lyrics. (It's a good idea to set the general font for lyrics and text blocks from this dialog box, using the Set Font button within the Finale text processor only for *exceptions* to the primary font.) Chord refers to the chord letter names and any *new* suffixes you create; ACCIs are the accidentals that occur within a chord symbol; Name means Staff Name (and if you click "X Offset", you can position the staff name relative to the staff); Tuplet refers to the number that appears above a tuplet (the 3 over a triplet, for example); Ending refers to the number that appears under a repeat bracket (the "2" in a second ending, for example).

- Click the button for the musical element whose font you want to change. The Text Font, Size and Style Selection dialog box appears. When you click a font name, you'll see the sample text change in the display above. If you change the point size, however, you must *click a font name* in order to update the sample text display. You can choose any combination of style elements—bold, italic, and so on.

- Click OK in each dialog box to return to the score.

To CHANGE MUSIC FONTS

If you choose not to use Finale's own font, Petrucci, you can substitute any other music font.

- Choose Data Check from the Edit menu. The Data Check dialog box appears.
- Click Switch Default Font and Do Selected Action. The font selection dialog box appears.
- Choose the new font and style, then click OK.
- Click Done. Depending on the music font you've selected, you may have to fine-tune the positions of individual elements, such as the eighth-note flags. For details, see "Music Characters dialog box" in *Finale Reference*. See also "Sonata font" in this volume.

To CHANGE EVERY OCCURRENCE OF ONE FONT TO ANOTHER

You can also use Finale's Data Check dialog box to change every occurrence of one font and size to another, no matter where they occur—in symbol libraries, in text, in chord symbols, and so on. This method is the only way to globally change the font used for *chord suffixes*. Because the default font for chord suffixes is Helvetica 12-point, you can use this command to change every occurrence of Helvetica 12-point to whatever chord-suffix font you prefer.

- Choose Data Check from the Edit menu. The Data Check dialog box appears.
- Click Swap One Font for Another and Do Selected Action. The font selection dialog box appears, asking you to specify the font to be replaced.
- Specify the font to be replaced, and click OK. The font selection dialog box appears again, asking you to choose the new font.
- Choose the new font and style, and click OK.
- Click Done.

TO CHANGE EVERY OCCURRENCE OF A FONT TO A DIFFERENT SIZE

With this technique, you can scale every occurrence of a certain font that's used in your file to a larger or smaller font size, no matter what size was used in each occurrence. For example, you could tell Finale to scale every occurrence of TmsRmn 24-point down to 12-point. In so doing, Finale would also scale TmsRmn 36-point down to 18-point, and TmsRmn 10-point down to 5-point.

- Choose Data Check from the Edit menu. The Data Check dialog box appears.
- Click Scale One Font to Another and Do Selected Action. The font selection dialog box appears, asking you to specify the font to be scaled.
- Specify the font and the point size you want to be scaled, then click OK. The font selection dialog box appears again, asking you to choose the new size. For this process to work properly, specify the same *font* in this dialog box as you did in the last one, but enter a different size.
- Choose the new font and style, and click OK.
- Click Done.

Forced accidentals See "Courtesy accidentals."

Forced key signatures See "Courtesy key signatures."

Forced time signatures See "Courtesy time signatures."

Formatting See "Page layout."

Fugue There are several Finale features you may find useful when creating a fugue. First of all, remember that you can create "intelligent copies" of any motif, so that when you edit or renotate the initial statement, all other occurrences change simultaneously (see "Mirroring").

If you need many individual musical lines on a single staff, remember that you can have up to four voices per staff (two layers with two voices in each layer). For a more complete discussion of inner voices, see Tutorial 8 in *Learning Finale*. Also keep in mind that you can *superimpose* two or more staves. Use the New Staff Tool ▣ to drag one staff until its staff lines are superimposed perfectly on top of another's (see "Multiple voices"). In either case, you can adjust the positions of individual noteheads and avoid overlapping notes by fine-tuning measures with the Special Tools Tool ▣ . See "Note positioning."

Full scores See "Extracting parts," "Optimizing staves," "Tiling pages."

G.P. See "Grand Pause."

Glissando A glissando, or gliss, is represented in the score by a diagonal line. In Finale, it's a Staff Expression or Score Expression (a Shape Expression). You can use the same symbol for fall-offs and other straight-line markings.* Use the Staff Expression Tool if the gliss appears in a single staff. If it appears in several (for example, if a gliss is written for all the strings at once), use the Score Expression Tool.

Glissando lines, along with other Shape Expressions, are stored in a Shape Expressions Library. If you're not working from DEFAULT.MUS as described in *Learning Finale*, then load the SHAPEXPR.LIB from the LIBRS directory so you won't have to create the shape. If you intend to place more than one glissando line into a file, here's an important tip. Assign the basic shape to a Metatool before placing them in the score (see "Expressions: Staff Expressions—To create Note, Staff, or Score Expression Metatools" for full instructions). Otherwise, you'll find that the glissandi aren't individually reshapable.

TO CREATE A GLISSANDO

- Click the Staff Expression Tool ▣ (to place the marking in one staff) or the Score Expression Tool ▣ (to place it in several staves).
- Click on, above, or below the note (for Staff Expression) or measure (for Score Expression) to which you want to attach the marking. The Staff Expression or Score Expression Selection box appears.
- Click Shape. The Shape Expression Selection palette appears. If you don't see a diagonal line among the shapes, see "Shape Designer" for instructions on using the Shape Designer.
- Double-click any diagonal line.
- If this is a Score Expression, and you want to specify which staves are to receive the glissando, click *Staff List*. Finale displays a list of all staves in the piece. Click in the Score column so that an X appears for each staff to which you want to apply the glissando. (You can also specify whether or not the marking will appear in a staff's *extracted part* by placing an X in the Part column.) When you're finished configuring the Staff List, click OK.
- Click OK. The glissando line appears in the staff or staves you specified, although it may not be the right size, angle, or position.

TO RESHAPE, MOVE, OR DELETE A GLISSANDO

- Click the tool (Staff Expression or Score Expression) that you used to create the glissando.
- Click the measure (Score Expression) or note (Staff Expression) that the glissando is attached to. Its handles appear.
- Drag the right handle to reshape the glissando. Drag the left handle to move it. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. Before you print, inspect the glissando in Page View to ensure that it isn't extending past a staff system

TO CREATE A PLAYBACK GLISSANDO

The best way to create a glissando effect, at least for keyboard sounds, is to actually write out a run and define the notes as grace notes (see "Grace notes").

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* If you want to create a "doit" marking and would like to follow the instructions in this entry, consider using the Curve Tool (in the Shape Designer) instead of the Line Tool to produce a slightly curved line.

Grace notes

TO CREATE GRACE NOTES

- Enter the grace notes as "normal" notes.
- Click the Speedy Note Entry Tool ▣ and click a measure. The editing frame appears.
- Using the arrow keys, position the cursor on the note you want to change to a grace note, and press the semicolon (;). The note becomes a grace note. On playback, the grace note will play just *ahead* of the beat—even if there are many grace notes together, forming a run. To change a grace note to a normal note, repeat the above procedure.

TO BEAM GRACE NOTES

- Click the Speedy Note Entry Tool ▣ and click a measure. The editing frame appears.
- Using the arrow keys, position the cursor on the *second* note of any pair you want beamed together, and press the slash (/). Repeat this process for any additional grace notes you want to include in this beam group.

TO CHANGE THE SIZE OF GRACE NOTES

- Choose Parameters from the Special menu. The Parameters dialog box appears.
- Enter a new reduction value in the Grace Note Percent box. The default reduction for grace notes is 50% (compared to 100% for regular notes).

TO ELIMINATE GRACE NOTES FROM A TRANSCRIPTION

When you're attempting to use HyperScribe or the Transcription Tool to notate real-time performances, you may find grace notes in the transcription. The problem is one of quantization—Finale is transcribing *too* precisely. Fortunately, there's a simple solution.

- If you're transcribing with the Transcription Tool, choose Expand Minimums from the Transcribe menu before transcribing. This command finds any note whose duration was smaller than the specified quantization value (also determined in the Transcribe menu), and *expands* its duration to the minimum quantization value, thus eliminating grace notes from the transcription.
- If you're transcribing with HyperScribe, you're probably using Float Quantizing with the Sensitivity value set too high. Choose Tap Duration from the HyperScribe menu, click Float Quantizing, and click *Sensitivity*. The Set Duration box appears.
- Click the next *smallest* duration value. Click OK or Select in each dialog box to return to the score. The Sensitivity value specifies the search width Finale uses in trying to decide whether or not a given note was a tuplet. By choosing a smaller duration for this "search window," you help Finale to focus more accurately for recognizing small tuplet values. If the new Sensitivity value doesn't help, try selecting a still smaller Sensitivity value.

TO CREATE A GRAPHIC ONLY "SLASHED" GRACE NOTE

In addition to the "intelligent" grace notes described above, you can also add a single, stem-up, "slashed" grace note symbol as a Note Expression.

- Click the Note Expression Tool ▣ .
- Click on, above, or below the note. The Note Expression Selection box appears.
- If you see the slashed grace note in the selection box, double-click it. You return to the score, and the grace note is attached to the note.
- If you don't see a slashed grace note, click Create. The Note Expression Definition box appears.
- Type ALT0201. In the Petrucci music font, ALT0201 is the grace note. For a grace note symbol without the slash, type the semicolon key. For a stem-down, unslashed grace note, type Shift-semicolon (the equivalent of a colon in a text font).
- Click OK or Select in each dialog box to return to the score.

To MOVE OR DELETE A SLASHED GRACE NOTE (NOTE EXPRESSION)

- Click the Note Expression Tool 🔲.
- If the grace note's handle isn't visible, click the note to which it was attached.
- Drag the handle to move the grace note. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the slashed grace note and it still appears to be on the screen, choose Redraw Screen from the View menu.

Grand Pause Use the Score Expression Tool to place the "G.P." marking in all staves. If you plan to extract parts or to "optimize" staves, you must make sure that the Grand Pause measure doesn't get grouped into a single multimeasure rest in the extracted parts. To do so, give each barline of the G.P. measure the *Light Line* designation (see "To add a Light Line barline," below).

To CREATE A G.P. MARKING

- Click the Score Expression Tool 🔲.
- Click above or below the G.P. measure. The Score Expression Selection box appears.
- If the G.P. marking already appears in the selection box, double-click it, and click OK. The expression appears in the score, where you can adjust its position (see below).
- If the G.P. marking doesn't appear in the selection box, click Create. The Text Expression Designer appears.
- Type G.P. Click Set Font to change the type style.
- Click OK or Select in each dialog box to return to the score.

To MOVE OR DELETE THE G.P. MARKING

- Click the Score Expression Tool 🔲.
- Click the measure that the marking is attached to. Its handle appears.
- Drag the handle to move the marking. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it.

To ADD A LIGHT LINE BARLINE

The Light Line barline appears in the score exactly like a standard barline. However, it has a special meaning to Finale. It automatically splits the measures on either side into separate multimeasure rests when parts are extracted. Thus, by placing a Light Line barline at *both* ends of a G.P. measure, you can ensure that it won't be grouped into a multimeasure rests. This way it always appears as an independent single measure in extracted parts.

- Click the Measure Attributes Tool 🔲, and double-click the left barline handle of the G.P. measure. The Measure Attributes dialog box appears.
- Click Light Line and click OK.
- Double-click the right barline of the G.P. measure. Again, click Light Line and click OK. When you extract parts from this full-score file, the G.P. marking will appear in a single independent measure.

Gregorian chant See "Early music," "Note shapes," "Staff lines."

Groups: Measures See "Measure layout."

Groups: Staves See "Staff groups."

Gruppettos See "Mordents."

Guitar parts See also "Tablature."

Guitar parts present a particular challenge, because they combine regular notation with *slashes*, or hash marks, representing chordal rhythms. There are two ways of accomplishing this combination.

The first way is to create *two* staves for the guitar line. The first is a normal staff on which you'll write the melodic parts in standard notation. The second staff will be defined to display all notes as slashes. After preparing each staff, you'll simply superimpose them so that the proper measures contain the proper notation.

The second way is to notate the entire part on one staff, temporarily notating the slashes as standard noteheads on the G line of the treble-clef staff, for example. Once that's done, you can change the appropriate noteheads to slashes with the Special Tools Tool.

To CREATE A GUITAR PART (SUPERIMPOSED STAVES METHOD)

- Prepare the score by allowing two staves for each single guitar line.
- Choose Floats from the Special menu. A dialog box appears.
- Click Float Note Shapes. Click OK.
- Click the Staff Attributes Tool ⊒ . A handle appears on each staff.
- Click the handle of the second guitar staff. The Staff Attributes window appears. You activate changeable note shapes for one staff at a time. In this case, tell Finale to display all noteheads as slashes for this staff.
- Click Float Note Shapes. A scrolling key signature box appears. You can ignore it, unless you're working with nonstandard key signatures.
- Click OK. The Note Shape Assignment dialog box appears.
- Click Quarter Note Head. There are four notehead *shapes* in Finale: the quarter notehead (also used by eighth, sixteenth, and smaller note values), the half notehead, the whole notehead, and the double whole notehead. For each note of the scale, you can specify a different notehead shape for *each* of these four noteheads. (For a more complete discussion of these options, see "Note shapes.")
- Type ALT0243 in the *Symbol* text box. The symbol that appears is the System font equivalent of the slash mark in the Petrucci music font. If you prefer to specify the slash mark graphically, click the word *Symbol*. A palette appears, displaying every character in the music font. Double-click the slash. (There are actually two slashes available in the Petrucci font. The smaller one is more appropriate for use as a notehead.) You return to the Note Shape Assignment dialog box.
- Click Next. Again, type ALT0243. You're cycling through each step of the scale, telling Finale which symbol to substitute for the normal notehead on each step. In this case, the symbol is always the slash mark. Therefore, you need to repeat this process for every note of the scale on which you anticipate placing a slash mark. Depending on your preferred method of creating slash notation, you may only need to create automatic slashes for a *single* scale degree (provided all your slashes can be on the same line or space). If the piece contains key changes, however—meaning that the scale degree's position on the staff will change—you may want to assign the slash notehead to *every* step of the scale.
  Keep in mind that the Diatonic Step indicator considers the first note of the scale to be zero, not one.

- Click OK, then click Blank Empty Measures. You've just ensured that no default whole rests will appear in the "slashes" staff (which would otherwise cause complications when the two staves are superimposed).
- Click OK. You return to the score.
- On the staff you just modified, enter the rhythms, all on the same pitch, for which you want slashes to appear. Enter the standard-notation music on the unaffected staff. You'll need to adjust the positions of the stems on the slashed notes. To do so, choose Stem Connections from the Special menu. Type ALT0243 into the text box, and enter the following numbers. Up Adjust: 14; Down Adjust: –14; Up Push: 4; Down Push: 0. Click Enable. When you return to the score, you'll see that stems now attach neatly to the slash noteheads.
  Quarter-note slashes are sometimes notated without stems. You can eliminate the stems completely from certain notes (see "Stemless notes").
- Click the Speedy Note Entry Tool ⬛ . In each of the two staves, *hide* the beats in each measure that will be occupied by notes in the *other* staff by positioning the cursor on the note or rest and pressing the letter O key. In other words, you need to anticipate a measure in which there will be both standard and slashed noteheads, as shown:
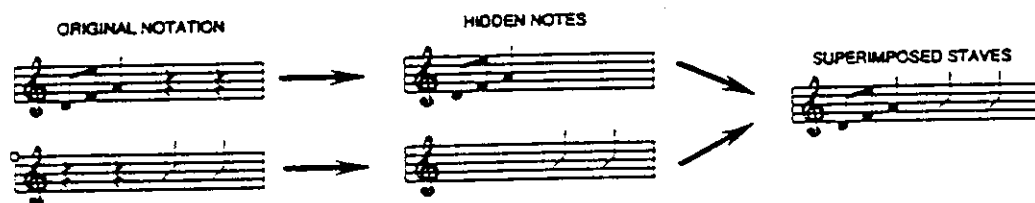
By pressing the letter O key to hide notes in each of two staves, you can create the effect of a single line of music with varying notehead shapes (once the staves are superimposed).

(If pressing the O key doesn't seem to work, make sure your Caps Lock key isn't down.)
- Click the New Staff Tool ⬛ . Drag the handle of one staff until the staves are perfectly superimposed. If they're not quite lined up, CTRL-click the handle of either staff. Take note of the Distance From Top number in this staff and click Previous or Next until the Staff Usage List for the other staff appears. Enter the same Distance From Top number as the first staff and click OK.

To create a guitar part (individually modified notehead method)

- Create the part on a single staff. For each note that's going to be a slash, enter a normal note on a consistent pitch (G on the treble clef staff, for example).
- Click the Special Tools Tool ⬛ , and click the first measure you want to contain slashes. The Special Tools window appears.
- Click the Notehead Tool ⬛ . Shift-click the handle of the first notehead you want to be a slash. Finale displays a palette containing every symbol in the Petrucci music font.
- Double-click the slash. You return to the Special Tools window, where the note now has a slash instead of a notehead.
- Repeat the process with the other slashed notes. If there are many measures with the same pattern of normal and slash noteheads, you can copy the notehead modifications from one measure to another. See "Note shapes—To copy individual notehead changes to other measures."

# Guitar slashes See "Guitar parts."

Hairpins See "Crescendo/Decrescendo."

Half notes You can enter half notes into the score with or without MIDI. You can also change any existing note into a half note.

TO ADD A HALF NOTE (USING MIDI)

- Click the Speedy Note Entry Tool 🔲. The SpeedOptions menu appears. Make sure there's a check mark beside Use MIDI Keyboard.
- Click the target measure. The editing frame appears. Position the insertion bar to the right of any existing notes in the measure.
- Hold down a key (or keys) on the synthesizer and press the 6 key on the computer keyboard. Any pitches you played appear as half notes.

TO ADD A HALF NOTE (WITHOUT MIDI)

- Click the Simple Note Entry Tool 🔲. The Simple Note palette appears.
- Click the Half Note 🔲.
- Click where you want the note to appear in the score. A half note appears.

TO CHANGE ANY NOTE TO A HALF NOTE

- Click the Speedy Note Entry Tool 🔲. Click the target measure. The editing frame appears.
- Press the right arrow until the insertion bar is on the note whose duration you want to change.
- Press the 6 key. Alternate method: click the Simple Note Entry Tool 🔲, click the Half Note 🔲, and click the note you want to change.

Half rests See "Rests (Simple Note Entry)," "Rests (Speedy Note Entry)."

Harmonics String harmonics are often notated as a diamond ◇ or small circle ○ above the notes they affect. In Finale, you create the harmonic symbol as a Note Expression. If you've loaded a Note Expression library into your file, you don't have to create these symbols.

TO PUT A HARMONIC SYMBOL ON A NOTE

- Click the Note Expression Tool 🔲.
- Click above or below the note. The Note Expression Selection box appears.
- If a harmonic symbol already appears in the selection box, double-click it. You return to the score, and the symbol is attached to the note.
- If you don't see a harmonic symbol in the selection box, click Create. The Note Expression Definition box appears.
- Type Shift-O (the letter O). In the Petrucci music font, Shift-O is the diamond (artificial) harmonic symbol. For the small circle (natural) harmonic, simply type the letter o (lower case).
- Click OK or Select in each dialog box to return to the score.

TO MOVE OR DELETE A HARMONIC SYMBOL

- Click the Note Expression Tool 🔲.
- If the symbol's handle isn't visible, click the note to which it was attached.
- Drag the handle to move the symbol. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the symbol and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO COPY HARMONIC SYMBOLS

See "Expressions: Note Expressions—To copy Note Expressions."

Harp pedal diagrams You can create a basic pedal diagram (just the cross, with no pedal indications) and insert it into the score as a basic skeleton. Then, with a second diagram, overlay the individual sets of pedal settings. Both markings are Shape Expressions created with the Staff Expression Tool.

To create the harp pedal diagram, you create two different shapes (left) and superimpose them (right).

TO CREATE THE PEDAL DIAGRAM SKELETON

- Click the Staff Expression Tool ▣ .
- Click above or below the note to which you want to attach the diagram. The Staff Expression Selection box appears.
- Click Shape. The Shape Expression Selection box appears.
- If you've already created the shape, it appears in the list. Double-click it and click OK. The shape appears in the score, where you can adjust its position (see below).
- If the shape doesn't appear in the list, click Create. In the dialog boxes that follow, click *Shape ID*, then click Create. The Shape Designer appears.

  The next step takes you through the creation of the harp pedaling diagram skeleton. For a more complete discussion of the Shape Designer, see "Shape Designer."

- Fill in the coordinate boxes as shown below. After you enter each pair, click the specified tool.

X:	Y:	Tool:
574	0	Line Tool ▣
246	90	Move Tool ▣
246	−90	Line Tool ▣

If you make a mistake along the way, click Undo to cancel your last operation.

These numbers are plane geometry coordinates, measured in EVPUs (288 per inch). This harp pedal diagram is about two inches long and an inch tall. You can make it larger or smaller by dragging the handles once you're finished drawing.

- Drag the gray square handles of the bounding box so that it encloses the shape. The shape may appear to be misaligned on the screen but, when printed on a PostScript device, it will be perfectly straight.
- Click OK, then Select. A dialog box appears, letting you specify additional aspects for the shape.
- Click Use This Data and Lock Shape. These items prevent the shape from being edited or stretched (as a result of system justification) when it appears in the score.
- Click OK or Select in each dialog box to return to the score.

To Create the Pedal Diagram "Pedals"

Now create the pedal indications themselves, which you'll superimpose on the skeleton.

- Click the Staff Expression Tool ▣ .
- Click above or below the note to which the skeleton is attached. The Staff Expression Selection box appears.
- Click Shape, then click Create. In the dialog boxes that follow, click *Shape ID*, then click Create. The Shape Designer appears.
- Click the Line Thickness Tool ▤ , type 50, and click OK. You've just specified the thickness of the pedal lines; 50 means one-half point (there are 72 points per inch).
- Fill in the coordinate boxes as shown below. After you enter each pair, click the specified tool. If you make a mistake along the way, click Undo to cancel your last operation.

X:	Y:	Tool:
0	70	Line Tool ▨
82	0	Move Tool ▨
82	70	Line Tool ▨
164	0	Move Tool ▨
164	70	Line Tool ▨
246	0	Move Tool ▨
246	70	Line Tool ▨
328	0	Move Tool ▨
328	70	Line Tool ▨
410	0	Move Tool ▨
410	70	Line Tool ▨
492	0	Move Tool ▨
492	70	Line Tool ▨

- Drag the gray square handles of the bounding box so that it encloses the shape. You've essentially created seven short lines, representing the seven harp pedals. You'll drag these "pedal symbols" into position once they're in the score. (The shape may appear to be misaligned on the screen but, when printed on a PostScript device, it will be perfectly straight.)
- Click OK, then Select. A dialog box appears, letting you specify additional aspects of your new shape.
- Click Lock Shape. This prevents the shape from being stretched horizontally when it appears in the score. You can, however, *edit* the shape (by rearranging the "pedals").
- Click OK or Select in each dialog box to return to the score.
- Move the set of pedal symbols *by dragging the bottom-left corner handle* on top of the skeleton, so that the pedals all appear to be in the up position. Drag the skeleton diagram into position first, if necessary.

To Create "Pedal Changes"

If there will be more than one pedal diagram, it's very important to place the pedal symbols in the score with a Staff Expression Metatool. Otherwise, you'll change the pedal configuration in *every diagram* whenever you change one of them. See "Expressions: Staff Expressions—To create a Note, Staff, or Score Expression Metatool."

- Click the Staff Expression Tool ▣ .
- Click the note to which the diagram was attached. Its handles appear.
- Drag *the bottom handle* of each "pedal" directly downward into position. If you drag an upper handle by mistake, your shape will lose its formation. If this happens, double-click the leftmost pedal's bottom handle, so that the Shape Expression Designer appears. Click OK. You return to the score, where your pedals have been restored to their original shape.

To MOVE OR DELETE EITHER DIAGRAM (SKELETON OR PEDAL)

- Click the Staff Expression Tool ⊞ .
- Click the note to which the diagrams were attached. The diagrams' handles appear.
- Drag the *bottom left* handle of the pedal diagram to move it. Drag the skeleton diagram's handle to move it. Click the same handle and press Delete to remove either diagram from the score.

Hash marks   See "Guitar parts."

Headless notes   You can create notes without heads on either a note-by-note or global basis (for plainchant notation or recitative, for example).

To REMOVE THE HEAD OF A SINGLE NOTE

- Click the Special Tools Tool ⊞ , and click the target measure. The Special Tools window appears.
- Click the Notehead Tool ⊞ . A handle appears on each notehead.
- While pressing Shift, click the desired notehead's handle. A palette appears, displaying every character in the music font. (Some of the squares in the palette are blank.)
- Double-click any blank square. To restore the notehead, click its handle to select it. Press Delete.

To REMOVE ALL NOTEHEADS

- Choose Music Characters from the Special menu. The Music Characters dialog box appears.
- Under the heading Noteheads, click *Quarter*. A palette appears, displaying every character in the music font.
- Double-click any blank square.
- Click *Half*. Again, double-click any blank square. Repeat with the *Whole* and *Double Whole* notehead types, if they appear in your piece.
- Click OK. To restore the noteheads, repeat the process. Instead of double-clicking a blank square, however, double-click the appropriate notehead shape in the palette.

Hiding key signatures   It's standard practice to display the key signature at the beginning of each system. You can, however, tell Finale not to display the key signature in a particular measure (in which the key signature would normally appear).

To HIDE THE KEY SIGNATURE IN A MEASURE

- Click the Measure Attributes Tool ⊞ . A handle appears on each barline.
- Double-click the top handle on the *ending* barline of the measure in which you don't want a key signature to appear. In general, this is the first measure on a line. Be sure to perform these steps just before printing, to ensure that the measures with hidden key signatures don't move from their positions.
- Select Ignore Key. You can also *force* a key signature to appear in a measure where it would not normally appear by selecting Restrike Key (see "Courtesy time signatures").
- Click OK.

Hiding notes and rests   A hidden note in Finale still takes up horizontal space, but it doesn't play back or print out. Hiding a rest is an excellent way to provide a "placeholder" in order for a second voice to enter in the middle of a measure.

TO HIDE A NOTE OR REST

- Click the Speedy Note Entry Tool ⬚, and click the target measure. The editing frame appears.
- Use the right arrow to move the insertion bar to the desired note or rest. The pitch crossbar doesn't have to be on the notehead.
- Press the letter O key. To show the note or rest again, press O again. (If pressing the O key doesn't seem to work, make sure your Caps Lock key isn't down.)

Hiding rests See "Hiding notes and rests."

Hiding staves If you're interested in hiding staves to print a full score (so that empty staves are omitted from each system), see "Optimizing staves."

By hiding the staves you're not immediately editing, you can greatly reduce the time it takes the computer to redraw the screen as you move around your score.

TO HIDE STAVES (SCROLL VIEW ONLY)

- Click the New Staff Tool ⬚.
- Select the staves you *don't* want to hide. You can select one staff by clicking its handle, several staves by drag-enclosing their handles, additional staves by Shift-clicking their handles, or all staves by choosing Select All from the Edit menu. If the score has many staves and you only want to hide one or two, here's a quick way to do it. Choose Select All from the Edit menu to select all handles, then Shift-click a staff handle to *exclude* it from the selected staves.
- While pressing CTRL, choose one of the Staff Templates (1 through 4) from the View menu. You're programming a Staff Template that, when chosen, will hide the non-selected staves.
- To view the new configuration of staves, choose the Staff Template you programmed from the View menu. A quicker way is to note the keyboard equivalent for the desired Staff Template (F7–F10). By pressing F6, you restore all staves to the display. By pressing the command for your Staff Template, you "rehide" the desired staves. You can repeat this process with other configurations of staves (the other three Staff Templates), which allows you a total of five instantly available staff configurations. Finale *prints* all staves, however, no matter which ones are visible in Scroll View. To omit staves in printing, see "To hide staves for printing."

TO HIDE STAVES FOR PRINTING

If your purpose is to hide *empty* staves when printing a full score, see "Optimizing staves."

- Click the New Staff Tool ⬚. A handle appears on each measure.
- Select the staves you want to temporarily delete. You can select one staff by clicking its handle, several staves by drag-enclosing their handles, additional staves by Shift-clicking their handles, or all staves by choosing Select All from the Edit menu.
- Press Delete. Don't worry, the selected staves are only temporarily removed.
- Format and print your piece as usual.
- When you want to restore the staves, choose Data Check from the Edit menu. The Data Check dialog box appears.
- Click Deleted Staves, then click Do Selected Action. A dialog box appears, letting you know that Finale is still keeping track of the deleted staves.
- Click Appended. Finale computes for a moment and, when it's finished, you return to the Data Check dialog box.

• Click Done. Finale has appended any deleted staves *back onto the score.* If you had deleted other staves—which you *didn't* want restored—select them again with the New Staff Tool and press Delete. In the meantime, drag the staves you wanted to restore back into position.

TO PLAY BACK ONLY VISIBLE STAVES

If you've hidden staves, you may notice that Finale still *plays back* all staves, even though only some are visible. Use the following technique to tell Finale only to play the staves that are currently displayed.

• Click the Playback Tool ⑨ . The Playback menu appears.

• Choose Playback Options from the Playback menu. A dialog box appears.

• Click Play Visible Staves.

• Click OK. To hear all staves again, choose Play All Staves in the same dialog box.

Hiding time signatures
It's standard practice to display the time signature at the beginning of each system. You can, however, tell Finale not to display the time signature in a particular measure (in which the time signature would normally appear).

TO HIDE THE TIME SIGNATURE IN A MEASURE

• Click the Measure Attributes Tool ▦ . A handle appears on each barline.

• Double-click the top handle on the *ending* barline of the measure in which you don't want a time signature to appear. The Measure Attributes box appears.

• Select Ignore Time. You can also *force* a time signature to appear in a measure where it would not normally appear by selecting Restrike Time (see "Courtesy time signatures").

• Click OK.

Holds See "Fermatas."

Hymns
There are several conventions common to hymns that Finale can accommodate. For example, hymns are often notated on two staves (which may be Soprano/Alto and Tenor/Bass and double as an organ part), with lyrics in between. Use Layer 1/Layer 2 on each staff to create parts whose stems are automatically flipped the right way (see "Multiple voices").

Often a hymn contains several *verses* with a single repeated *refrain.* Assuming the lyrics lie between the two staves, how can you adjust the *space* between the two staves so that there's enough room for multiple verses, yet leave less space between staves where there are only the single-line refrain lyrics?

The solution is to *optimize* the staves. In general, optimizing is used to suppress the printing of blank staves within a system. Optimizing has another important effect: it allows each staff within a system to be independently movable in Page View.

Another characteristic of published hymns is that the first syllables of all verses are aligned with each other, flush left. (Lyrics under normal circumstances are centered under the notehead.) To create this alignment, see "Lyrics—To align syllables vertically with each other."

TO CREATE VARIABLE-DISTANCE SYSTEMS

For best results, perform this operation last, just before you print. See "Optimizing staves" for more information.

• Click the Page Layout Tool 回 . The Page Layout menu appears. Before you optimize, make sure that there aren't any blank staves within the hymn that you *don't* want deleted from the printout. See "Optimizing staves" for more information.

• Choose Optimize Staves from the Page Layout menu. A dialog box appears.

• Click OK.

• Click the New Staff Tool 田 . A handle appears on each staff.

• Drag the handle of any staff to move it. The subsequent systems move up or down on the page to compensate.

Hyphens
A hyphen (or a space), when typed into the Mass Create window for lyrics, indicates the end of a lyric syllable. When Finale distributes lyrics automatically into the score (see "Lyrics"), it looks for a hyphen or space as its cue to advance to the next melody note.

TO PREVENT A HYPHEN FROM ENDING A SYLLABLE

In certain situations (melismatic passages, for example), you may *not* want Finale to assume that a hyphen is the end of a syllable.

• If you're not already in the Mass Create window, click the Lyrics Tool 回 and choose Mass Create from the Lyrics menu. The Mass Create window appears.

• To create a hyphenated word, all of which will be assigned to a single note, type ALT0173 in place of the normal hyphen. When these lyrics are distributed into the score in the normal way, the ALT0173-hyphen (known as an "en-dash") will not separate the word into syllables.

Imploding music Finale can "implode" music from several staves onto a single staff. For example, you can take trumpet parts from three staves and reassign them to a single staff, where the three parts would be integrated into a triadic chordal part. Imploding can be extremely useful for creating piano reductions or conductor's scores (where each instrument "choir" appears on one, two, or three staves).

TO IMPLODE MUSIC ONTO A SINGLE STAFF

• Click the Mass Mover Tool 🖾 .

• Select the region to be imploded. You can select a region of measures by Shift-clicking or drag-enclosing, entire staves by Shift-clicking to the left of each, or the entire piece by choosing Select All from the Edit menu.

• Choose Implode Music from the Mass Edit menu. The "Do you want the imploded music..." dialog box appears, asking whether the resultant reduction should appear on a new staff (at the bottom of the score) or on the top selected "pre-implosion" staff (in which case its current contents will be replaced).

• Click either New or Top. If you've selected a large amount of music, this process may take time. Be aware that Note Expressions and Staff Expressions in the source staves appear in the resultant staff.

Importing You can import MIDI files and ENIGMA Transportable Files into Finale.

TO IMPORT A MIDI FILE
See "MIDI files."

TO IMPORT AN ENIGMA TRANSPORTABLE FILE
An ETF, or ENIGMA Transportable File, is a *text-only* file that can be transferred easily between different computers. By using an ETF, the IBM version of Finale can read files created by the Macintosh versions of Finale and MusicProse, and vice versa.

• Choose Open from the File menu. A list box appears. Three file types are listed at the bottom of the window.

• Click ENIGMA Transportable File. The names of any available ETFs appear in the list box.

• Double-click the desired file name. The file opens.

Indenting systems Use this method to indent a system—the first system in the piece, for example.

TO INDENT A SYSTEM
• Click the Page Layout Tool 🖾 . Finale switches to Page View.

• Click the page on which the system appears. The Page Layout window appears.

• Click Staff Systems. Handles appear on the outline of each system.

• Drag the upper-left handle of the desired staff inward. You can also click the handle and then type a positive number into the left middle box (of the four boxes in the upper right of the screen), then click anywhere in the layout window to see the change reflected. This box specifies the distance, in EVPUs (288 per inch), between the left edge of the selected system and the left page margin. At zero, the system is flush with the margin. As the number increases, the system is indented farther to the right.

• Click OK. To restore the page, click Default, or click the system's handle and type 0 into the left middle box.

inner voices See "Multiple voices."

inserting music This entry contains information on inserting music into an existing score. For instructions on inserting lyrics, see "Lyrics." For instructions on inserting blank measures, see "Measures."

Once you've copied music (see "Copying music"), you have two options. You can either *paste it over* the existing music in the file (or another file), or you can *insert it* in front of existing music. In the latter case, Finale creates new measures in all staves to accommodate the pasted material.

TO INSERT MUSIC THAT HAS BEEN COPIED TO THE CLIPBOARD

See "Copying music—To copy music to another file" for instructions on copying measures of music to the invisible Windows Clipboard. These instructions assume that the music to be inserted is already on the Clipboard.

- Click the measure just *after* the insertion point. In other words, if you want the inserted music to appear between measures 3 and 4 of the target file, click measure 4. If the material you copied was from only one staff, but you're pasting into a many-staved score, the music on all the *other* staves will be shifted to the right (and empty measures added), even though you're only inserting into one staff. In other words, Finale will never misalign one staff's music with another's.

  If the music on the Clipboard was copied from ten staves, you don't have to insert all ten staves' worth into the target file. You can highlight a single measure in only *four staves* of the target file. Only the first four staves of the copied material will be inserted. (As before, all *other* staves in the target file will also be shifted to the right, so that the existing music doesn't get misaligned.) On the other hand, if you *do* want the entire copied section to be inserted, be sure to select a measure in the target region at least as many staves "deep" as the copied region.

- Choose Insert from the Edit menu.

Instrument names See "Staff names."

Instrument transpositions See "Transposing instruments."

Invisible rests See "Hiding notes and rests," "Whole rests."

Jazz notation See also "Chord symbols," "Guitar Slashes," "Swing."

For instructions on creating "doits" and fall-offs, see "Glissando" (which contains instructions for creating any kind of slanted-line notation).

Key changes See "Key signatures."

Key signatures See also "Nonstandard key signatures."

TO CHANGE THE KEY

- Click the Key Signature Tool ▣ . A handle appears on each barline.
- Click the handle of the first barline in the measure where the key will change. A scrolling list of key signatures appears.
- Click the up and down arrows until the desired new key signature appears. Scroll up to move into sharp keys, and down for flat keys.

  If you want to select or create a nonstandard key signature (based on a quarter-tone or other non-traditional scale), click 19th Century Western Tonality. See "Nonstandard key signatures" for a more complete discussion.

- Click OK. A box appears, asking for information about the key change.
- Specify the transposition effect. The three choices are Transposed, in which any existing music will be transposed to the new key; Held Modal, in which each existing note remains on its original *line or space*, but no new accidentals appear; or Held Chromatic, which holds each note at its original *absolute pitch*, adjusting accidentals where necessary.
- Click the desired region for transposition. The options are This Measure Only, This Measure Through Measure__ (which lets you specify the last measure of the key change), or This Measure Through End of Piece.

TO CREATE MULTIPLE SIMULTANEOUS KEY SIGNATURES

This subentry contains instructions for changing the *actual* key signature independently for different staves. This isn't the same thing as establishing staves for *transposing instruments* (trumpet and clarinet, for example), in which various staves are *notated* in different keys but all sound in the same concert key. To find out how to handle transposing instruments—for which Finale correctly changes the key signature automatically—see "Transposing instruments."

- Choose Floats from the Special menu. A dialog box appears.
- Click Float Key Signatures. Click OK.
- Click the Staff Attributes Tool ▣ . A handle appears on each staff.
- Click the handle of the first staff whose key you want to change. The Staff Attributes box for the selected staff appears.
- Click Float Key Signature. You need to specify Float Key Signature for each staff that will be in an independent key. If you have several staves to prepare this way, stay in the Staff Attributes box, and scroll between staves with the Prev and Next buttons.
- Click OK. Now you can set the key signature as described above (see "To change the key") independently for each staff you've prepared this way.

TO CREATE NONLINEAR (NONSTANDARD) KEY SIGNATURES

See "Nonstandard key signatures."

Key velocity
Key velocity, also called note velocity, is the MIDI data that describes how hard a key was struck. A note's key velocity usually determines its volume, although velocity can be programmed to affect other playback elements, depending on your synthesizer.

TO COPY OR ERASE KEY VELOCITY DATA
See "MIDI—To copy or erase captured MIDI data."

TO AFFECT THE KEY VELOCITY OF A SINGLE NOTE (NOTE EXPRESSIONS)
See "Accents."

TO AFFECT KEY VELOCITY WITH TEXT EXPRESSIONS OR SHAPE EXPRESSIONS
See "Crescendo/Decrescendo," "Dynamics."

TO RECORD KEY VELOCITY
For complete information on recording with the Transcription Tool, see Tutorial 5 in *Learning Finale.*

• After recording a performance in the Transcription Tool, click Capture Performance.

• Transcribe the performance in the usual way.

• Click the Playback Tool ⏸. Choose Playback Options from the Playback menu. Click Use Captured Performance (if it's not already selected). Click OK or Select in each dialog box to return to the score. If Use Captured Performance is selected, Finale will play back the original key velocity information it recorded when you created the performance—even if you edit the pitches and durations of notes in the score.

Landscape orientation Under normal circumstances, Finale prints your pages in *portrait orientation*—with the page taller than it is wide. For some scores, you may want the page turned sideways, in *landscape orientation*. For instructions on printing in landscape orientation, see "Printing."

Layout: Measures See "Measure layout."

Layout: Pages See "Page layout."

Lead sheets See also "Chord Symbols," "Lyrics," "Measures per line," "Titles."

In general, lead sheets are no different from any other format. There are one or two Finale features of which you should be aware, however.

TO OMIT THE LEFT BARLINE FROM EACH SYSTEM

In many lead sheets, there is no barline at the left end of the line.

- Choose Options from the Special menu. The Options dialog box appears.
- Click Don't Draw Left Line.
- Click OK.

TO PLACE A CHORD SYMBOL OVER AN EMPTY MEASURE

Finale won't let you attach a chord symbol to a default whole rest.

- Click the Speedy Note Entry Tool ⌷ . The SpeedOptions menu appears. Make sure Use MIDI Keyboard is selected.
- Click the measure and press the 7 key. A "real" whole rest appears, to which you can now attach a chord symbol. Press 0 (zero) to exit the editing frame.

TO ATTACH SEVERAL CHORD SYMBOLS TO A SINGLE NOTE

Occasionally, you may need to place a chord symbol at a place in the measure where there's no note to "attach it" to—for example, when the chord changes midway through the measure even though the melody is a sustained whole note.

You can enter the chord symbols in any of the ways outlined in "Chord symbols." For this example, we'll assume you're entering chord symbols by playing them, one by one, on the MIDI keyboard.

To create chord symbol changes in a measure with only one note, first attach all the chord symbols to the same note (left). Then drag each into place by its handle (right).

- Click the Chord Tool ⌷.
- CTRL-click the note or rest on which the first chord symbol is to be centered. The Chord Analysis Options box appears. (You can't add a chord symbol to an empty measure—one that has a default whole rest.)
- Click OK. Play a chord, in any register, on your synthesizer. Finale places the chord symbol into the score, aligned with the four triangles at the left side of the screen. At this point, you'd normally play a single key above middle C to advance the cursor. But to attach several chords to a single note, *don't* advance the cursor.

- Play the next chord. Finale places the second chord symbol *stacked on top of* the first one. Continue playing any other chords that follow this melody note.
- Click anywhere on the screen, then click the melody note. With the first click, you take Finale out of "listen" mode. The second click makes the chord symbol handles appear.
- Drag the handle on each chord symbol down and to the right to move it into position. Use the dotted lines to help you precisely align the additional chords with the first chord. If you need to widen the measure, click the Measure Attributes Tool. Drag the top handle of any barline, to widen a measure.

Ledger lines

Ledger lines appear automatically in Finale whenever you enter a note that requires them. In addition, any tool that performs a staff- or measure-related function automatically draws ledger lines as you move the cursor, letting you know which staff you're "attached" to.*

If you print on a PostScript device, you can define the thickness of ledger lines. Finale draws ledger lines the same thickness as staff lines and barlines.

TO ALTER THE THICKNESS OF LEDGER LINES, STAFF LINES, AND BARLINES

- Choose Format from the Special menu. The Format Variables box appears.
- Click PS Variables. The PostScript Variables box appears.
- Enter a new value in the Def Line Width (float) box. Line width (thickness) is measured in points (there are 72 points to an inch).
- Click OK.

Legal-size paper See "Printing."

Line breaks See "System (Line) Breaks."

Looping See "Repeats."

Luftpause See "Breath marks."

Lyrics

There are two ways to create lyrics within Finale. You can type the lyrics directly into the score, so that you know at all times where you are in the music using *On Page Create*. Or you may prefer the faster *Click Assignment* method—where you type the lyrics in Finale's text processor—*Mass Create*—then paste them into the score all at once.

Finale defines a syllable as any character or group of characters separated by a *space* or a *hyphen.* When you put the lyrics in the score, Finale automatically centers each syllable on its notehead, centers the hyphen between notes, and moves any syllable with its notehead.

Lyrics are often written in distinct sections—verse and chorus, for example. For that reason, Finale provides three different lyric *types*—Verse, Chorus, and Section. These types are identical in every respect—you can write the verse of a song and define it as a Chorus, if you want to—except that you can set the default font and positioning for each type differently. You could specify that all Verses are to be set in boldface type, but that all Choruses are set in italic type. (You can have as many as 512 of each lyric type. You can also change the font and style *within* any lyric.)

* These include the Staff and Note Expression, Tuplet, Simple Note Entry, HyperScribe, Transcription, and Reduce/Enlarge tools; and in Scroll View, the Text Block Tool.

TO TYPE LYRICS DIRECTLY INTO THE SCORE (ON PAGE CREATE)

- Click the Lyrics Tool ⑥ . The Lyrics menu appears. If you want to specify a lyric type (Verse, Chorus, or Section), choose Set Type and Number from the Lyrics menu. If you don't specify a type, your first lyrics will be a Verse.
- Click the staff. This is an important step. You must tell Finale which staff you want to attach lyrics to.
- Choose On Page Create from the Lyrics menu. A set of four positioning triangles appears at the left edge of the screen. These control the *baseline* of the lyrics (against which the bottom edges of the words line up). For a full discussion, see "To set the baseline (vertical position) for lyrics graphically," below.
- Click *on the staff* above the first melody note. Don't click the *notehead*. Instead, click anywhere on the staff above it. A small blinking cursor—the *insertion point*—appears beneath the first note.
- Type the lyrics. Each time you type a *space* or a *hyphen*, Finale automatically moves the insertion point to the next note in preparation for entering the next syllable. Finale automatically scrolls the music as you enter the lyrics, so you always know where you are.

  If you make a mistake, just backspace over it by pressing the Backspace key. (If you backspace to the previous syllable, Finale highlights the whole syllable for you so that you can replace it all at once with anything you type.) To change a word you've already typed, click in the staff so that the syllable is highlighted, then type its replacement.

  If you encounter a *melismatic* passage, where one syllable is sustained through several melody notes, press the Space bar for each note of the melisma. The cursor will skip ahead to the next note.

  As you type, Finale stores each syllable in its built-in text processor, Mass Create. It's important to understand that Mass Create and the lyrics in the score are *dynamically linked*. If you change a syllable in Mass Create, the syllable automatically changes in the score—and vice versa.
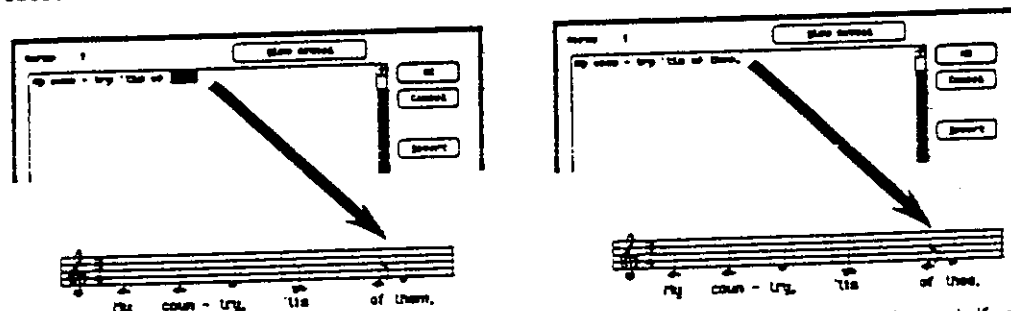
The lyrics in the Mass Create window (top) are dynamically linked to the lyrics in the score (bottom). If you notice an error in a lyric you've already put in the score, you can edit it in the Mass Create window; the lyrics in the score are instantly updated to reflect the change.

TO PREPARE LYRICS SEPARATELY (MASS CREATE)

This is the first step to adding lyrics to the score using the Click Assignment method.

- Click the Lyrics Tool ⑥ . The Lyrics menu appears. If you want to specify a lyric type (Verse, Chorus, or Section), choose Set Type and Number from the Lyrics menu. If you don't specify a type, your first lyrics will be a Verse.
- Choose Mass Create from the Lyrics menu. The text processor appears.
- Type the lyrics, including hyphens within polysyllabic words. If you make a mistake, backspace over it with the Backspace key. If you're anticipating a *melisma* (one syllable held over several notes), type ALT0160 *and a space* for each extra note through which the syllable is held.

You can select text by dragging through it. To view the previous or next Verse (or Chorus, or Section), click Prev or Next. If you click Next beyond the last lyric you've created, Finale will display a blank Mass Create window.

- When you're finished, click OK.

TO PLACE LYRICS INTO THE SCORE

- Click the Lyrics Tool ⒜ . The Lyrics menu appears.
- Click the target staff. This is an important step. You must tell Finale which staff you want to attach lyrics to.
- Choose Click Assignment from the Lyrics menu. A box appears, containing the lyrics you created in Mass Create. The bottom scroll bar scrolls through the syllables, right and left. The top scroll bar scrolls through the Verses.
  The default font of the lyrics is Helvetica 10-point (using DEFAULT.MUS). To change the font, see "To globally set the font for lyrics," below.
- If you want to place one syllable at a time, click the first melody note. You must click *on the staff* at the position of the note—not necessarily on the notehead itself. When you click, the first syllable displayed in the Click Assignment window disappears from the window and appears in the score, aligned with the note you clicked.
- If you want to assign all the lyrics at once, click the first melody note while pressing CTRL. This technique, called *CTRL-Click-Assigning*, tells Finale to assign each of the syllables, one after another, to consecutive melody notes, automatically skipping rests and tied notes. You have to repeat this process for each Verse, Chorus, or Section. If you have a second verse, for example, simply scroll back to its beginning spot, and CTRL-click-assign again.

TO EDIT LYRICS ALREADY IN THE SCORE

The method described below is useful for making small changes to lyrics you've already placed in the score—correcting a misspelling, for example.

If the editing you need to do is more extensive, it may be easier just to do it directly in Mass Create. After specifying the lyric type and number (by choosing Set Type and Number from the Lyrics menu), choose Mass Create from the Lyrics menu. Any changes you make in Mass Create automatically affect the lyrics in the score.

- Click the Lyrics Tool ⒜ . The Lyrics menu appears.
- Choose Set Type and Number from the Lyrics menu. Specify the lyric type and number that you want to edit.
- Click the target staff. This is an important step. You must tell Finale which staff contains the lyrics you want to edit.
- Choose On Page Create from the Lyrics menu. Click on the staff at the position of the syllable you want to edit. The syllable is highlighted.
- Type the new syllable. Anything you type replaces the highlighted syllable.
- Press the Space bar to advance to the next syllable. Press Backspace to backspace over what you've just typed. To select any syllable, click the note it's attached to. The syllable becomes highlighted, so you can now replace it with whatever you type.

TO CORRECT MISALIGNED LYRICS

If you discover that you've made a mistake and the lyrics don't correspond correctly to the melodic notes after CTRL-Click-Assigning, use the following technique to shift syllables.

- Click the Lyrics Tool ⒜ , and choose Lyric Shift from the Lyrics menu. A dialog box appears, letting you specify the direction and range of the lyric shift you're about to produce.

- Click the appropriate direction (Backward or Forward). If you click Backward, Finale will shift lyrics to the left relative to the melody. If you click Forward, it will shift them to the right.
- Click the appropriate range option. If you click Shift Lyrics Until Next Open Entry, the effect of your syllable-shifting will "ripple through" the score only as far as the first note that *doesn't* have a syllable attached to it. Subsequent syllables will remain where they are.

If you click Shift Lyrics Through Last Entry, Finale will shift *every* syllable from the one you click to the last one in the piece.

The Alter Syllable Numbers in Lyric Assignment option is only useful if you've created a set of lyrics with more syllables than there are notes to attach them to. Click this option on those rare occasions when you want to replace the syllable on each note with the syllable to its right or left—but without changing *which notes have lyrics* (see the figure below).
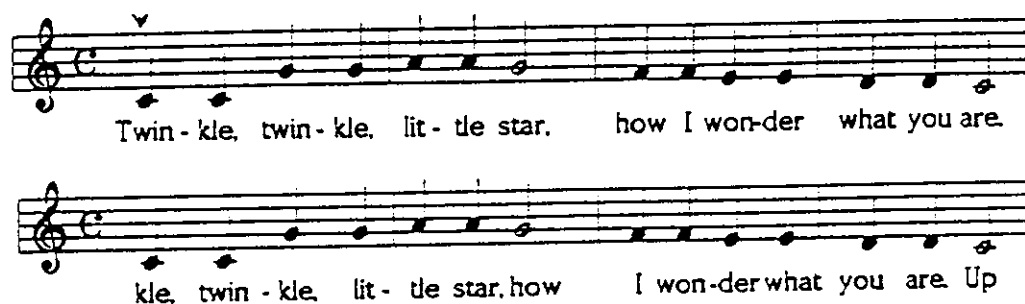
If you select "Alter Syllable Numbers in Lyric Assignment" (and Forward), you can click the note indicated by the arrow (top) to shift the syllable assignments by one syllable to the left (bottom).

- Click OK. You return to the score.
- If you specified a *Forward* shift (to shift syllables to the *right*) click *in the staff* above the *first* syllable you want to move. The syllable at which you clicked, and subsequent syllables, shift to the right by one melody note, automatically skipping notes, rests, and tied notes.
- If you specified a *Backward* shift (to shift syllables to the *left*), click in the staff above the syllable just *before* the first syllable you want to move. The syllable on the following note, and subsequent syllables, shift to the left by one melody note, automatically skipping notes, rests, and tied notes.

TO CORRECT OVERLAPPING LYRICS

You'll often discover that some of your lyric syllables overlap—or have more space than they need. You can use Mass Mover Metatool 3 (which you normally use for *respacing* the notes in your music) to correct lyric collisions. If DEFAULT.MUS is not in place, load an Allotment Library. For instructions on loading an allotment library, see "Allotments—To load an allotment library into an open file."

- Click the Mass Mover Tool 🔲 .
- Select the music you want respaced. In general, you'll want to choose Select All from the Edit menu, so that all staves are highlighted. (If you select only the lyric staff, you could get unexpected spacing in other staves, because the respacing Metatool sets the measure widths for *all staves* according to the spacing of the *selected* region.)

- While pressing the 3 key, double-click the highlighted region. This process takes time. When the Mass Mover "churning truck" cursor disappears, however, you'll find that your music has been carefully respaced according to the Allotment Library's specifications.

To GLOBALLY SET THE FONT FOR LYRICS

- Choose Font Selection from the Special menu. A dialog box appears.
- Click the button (Verse, Chorus, or Section) for the lyric type you want to change. The Text Font, Size and Style dialog box appears.
- Select the font, size, and style you want for your lyrics. Click OK, once in each dialog box. Use this method to set the primary font for your lyrics. If there are occasional variations within this primary font, see "To change fonts within a lyric" (below).

To CHANGE FONTS WITHIN A LYRIC

To set the primary font for a lyric, see "To globally set the font for lyrics," above. Use this method for exceptions to the primary font.

- Click the Lyrics Tool ⑥ . The Lyrics menu appears. If you want to specify a particular lyric type or number, choose Set Type and Number from the Lyrics menu.
- Choose Mass Create from the Lyrics menu. The text editor appears. If you have several lyric sections of the same type, use the Prev and Next buttons to cycle through them until you see the desired lyric.
- Select the text whose font you want to change by dragging through it (so that it's highlighted). Click Set Font. The Text Font, Size and Style Selection box appears.
- Select the desired font and click OK. Finale will insert some codes, in parentheses, at the place where the font change is to occur. If you want to see how the lyrics will look in the score, click View Actual. Click View Actual again to return to the text editor.
- Click OK.

To SET THE BASELINE (VERTICAL POSITION) FOR LYRICS NUMERICALLY

You can set the height of the lyric line with respect to its staff either before or after you've placed your lyrics in the score. You can also set the *baseline* (on which the bases of the letters align) independently for each staff in each system—and for each set of lyrics of each type. Finally, you can drag any syllable anywhere you want (see "To move or delete a syllable," below).

- Click the Lyrics Tool ⑥ . The Lyrics menu appears.
- Choose Set Lyric Lines from the Lyrics menu. A dialog box appears.
- Specify the lyric type and number for which you want to set the baselines. Also specify the staff and system number, if desired. You specify a staff and system number by clicking the Prev and Next buttons beside the Staff and Staff System boxes. If you just want to move the baseline for the entire piece at once, you don't need to adjust the staff or system controls, just click in the Piece text box.
- Enter the distance you want the baseline to be from the *center line* of the staff in the appropriate box or boxes. The center line of the staff is the zero position. To set the baseline half an inch below it, then, you'd type –144 in the Piece box (a negative number because you're moving the line *down,* and 144 because the units are EVPUs, of which there are 288 per inch). If there were very low melody notes and you felt that the baseline in the third system needed to be a quarter inch lower *still,* you'd set the Staff System counter to 3 (by clicking the right arrow twice), and you'd enter –72 in the Staff System 3 box.
- Click OK.

To Set the Baseline (Vertical Position) for Lyrics Graphically

- Click the Lyrics Tool ⑥ . The Lyrics menu appears. Choose Set Type and Number from the Lyrics menu to specify the lyric type and number.

- Click the staff. This is an important step. You must tell Finale for which staff you want to adjust the baselines.

- Choose Click Assignment or On Page Create from the Lyrics menu. If the Click Assignment box appears, move it out of the way by dragging its title bar. At the left edge of the screen, you'll see a horizontal row of four small triangles pointing to the right. These triangles control the baseline for the lyrics.

- Drag the leftmost triangle up or down to set the baseline for the *entire piece* (for the selected lyric type and number). As you drag it, the other three triangles move with it.

- Drag the second triangle up or down to set the baseline for *this staff*, all the way through the piece (for the selected lyric type and number). As you drag it, the two triangles to its right move with it.

- Drag the third triangle up or down to set the baseline for *this staff, this system only* (for the selected lyric type and number). As you drag it, the rightmost triangle moves with it. For best results, use this third triangle only in Page View (so you can see the system you're affecting).

- Drag the rightmost triangle up or down to set the baseline for the *next syllable, before it's entered*. This option is useful when you're entering lyrics with On Page Create or by Click Assigning one syllable at a time.

To Move or Delete a Syllable

- Click the Lyrics Tool ⑥ . The Lyrics menu appears.

- Choose Position Adjustment from the Lyrics menu.

- Click on the staff at the position of the syllable you want to move. Don't click the syllable, or even the note to which it's attached. Just click *within the staff lines* in line with the syllable you want to move or delete. Its handle appears.

- Drag the handle to reposition the syllable. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove the syllable. This method of deleting a syllable *doesn't* pull the following syllables one note to the left. It allows you simply to remove a selected syllable, leaving all other syllables where they are. To delete a syllable such as an extra one typed in by mistake, where you want the remaining syllables to slide over to compensate, see "To correct misaligned lyrics," above.

- To restore a syllable to its original position, click its handle and press Backspace.

To Erase Lyrics

- Click the Mass Mover Tool ⑧ .

- Select the desired region. You can select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, an entire staff by clicking to the left of it, or the entire piece by choosing Select All from the Edit menu. When measures are selected, the Mass Edit menu appears.

- Choose Erase from the Mass Edit menu. A dialog box appears.

- Proceeding through the dialog boxes, click as follows: Only the Selected Items, Entries, Only the Selected Items, Lyrics.

- Click OK, once in each dialog box.

To Copy Lyrics

- Click the Lyrics Tool ⑥ . The Lyrics menu appears.

- Choose Clone Another from the Lyrics menu.

- Choose Set Type and Number from the Lyrics menu. Set the type and number for the lyrics you want to copy, and click OK.
- Select the region whose lyrics you want to copy. You use the Lyrics Tool to select a musical region just as you would with the Mass Mover Tool. Select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, or an entire staff by clicking to the left of it.
- Drag the first source measure so that it's superimposed on the first target measure. If the first target measure isn't on the screen, scroll to it, then CTRL-Shift-click it. In either case, the lyrics are copied from the source selection to the target music. Finale will only place lyrics in the target region on notes that fall on the *same beats* as they did in the source region.

TO ALIGN SYLLABLES VERTICALLY WITH EACH OTHER

This process is especially useful for aligning the first syllables of several verses. In order to work, syllables from at least two sets of lyrics must be in place beneath the same notes.

- Click the Lyrics Tool 🔲 . The Lyrics menu appears.
- Choose Position Adjustment from the Lyrics menu.
- Click on the staff at the position of the target syllables. Don't click the syllable, or even the note to which it's attached. Click *in the staff lines*. Handles appear on each syllable attached to the note.
- Drag the handle of the topmost syllable to position it. In a moment, you'll be aligning the remaining syllables with the top one.
- Shift-click the handle of each syllable you want aligned with the top one. The selected handles are highlighted.
- Choose Align Left or Align Right from the Lyrics menu. These commands are only available in Position Adjustment mode, and they only work when two or more syllable handles are selected. If you choose Align Left, Finale aligns the left edges of *all* selected syllables with the left edge of the *top* selected syllable. If you choose Align Right, it aligns the *right* edges.

TO DRAW A "WORD EXTENSION" UNDERLINE

When a syllable's note is tied over to another note or sustained through several notes (as in a melisma), a common practice is to draw an underline following the syllable to indicate its extension.
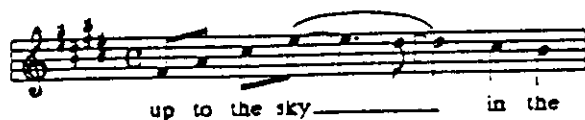
It's a good idea to wait until your piece is formatted and ready to print before adding word extensions—and then add them in Page View. That's because word extensions don't expand and contract along with the music, so you should be sure that their lengths are appropriate for the piece in its final layout.

- Click the Lyrics Tool 🔲 . The Lyrics menu appears.
- Choose Word Extension from the Lyrics menu.
- Click on the staff at the position of the syllable to be extended. Don't click the syllable, or even the note itself. Click *in the staff lines*. A handle appears at the end of the syllable.
- Drag the syllable's handle to the right. As you drag, you create an underline. To remove the underline, click its handle and press Delete.

If a word extension straddles two staff systems, you may wonder how to draw its continuation at the beginning of the next system, since there's no syllable there from which to "launch" it. The solution is to create an *invisible* syllable on the first note of the second system. To do so, choose On Page Create from the Lyrics menu and click the note to which you want to attach the invisible syllable, so that the blinking text cursor appears below the staff. Type an ALT0160 and then a regular space. Now choose Word Extension from the Lyrics menu, and create the word extension from this invisible syllable.

To ADJUST THE POSITION OF "WORD EXTENSION" UNDERLINES

- Choose Parameters from the Special menu. The Parameters dialog box appears.
- Enter new values into the Word Extension Lift and Push boxes. The Word Extension *Lift* is the distance, measured in EVPUs (288 per inch), between the underline and the baseline (against which the bottoms of the lyric syllables align). The Word Extension *Push* is the distance, also measured in EVPUs, between the end of the syllable and the beginning of the underline.
- Click OK.

Margins (page) There are two kinds of margins in Finale: *page margins* and *system margins*. Both can be set either from a menu or with the Page Layout Tool. For information on system margins, see "Systems."

TO CHANGE PAGE MARGINS GRAPHICALLY (PAGE LAYOUT TOOL)

• Click the Page Layout Tool ▣ . Finale switches to Page View, if it's not already there.

• Click the page whose margins you want to change. If you want to change *all* page margins at once, click any page. If you want to change only one page, click that page. You enter the Page Layout window.

• Click Page Margins. You see a dotted line, representing the current page margins. In the four text boxes (upper right corner of the screen), you see the margins' measurements in EVPUs (288 per inch). These numbers are the distances *from the edge of the page*; so, if the page size changes, the margins remain constant relative to the edge of the page.

These measurements are positive if the margin is *above* or to the *right* of the edge of the page, and negative if the margin is *below* or to the *left* of the edge of the page. From top to bottom, the four boxes are: Top margin, Left margin, Right margin, Bottom margin.

• If you want your changes to affect *all pages*, choose Global Adjustment from the Page Layout menu. Otherwise, your changes will affect *only this page* (the page you clicked).

• Change the margins by dragging the handles of the dotted margin line. As you drag, the numbers in the text boxes change. You can also edit these numbers directly. After typing a new measurement, click in the window area to update the graphic display.

• To restore the page to its original state, click Default. When you're finished, click OK.

TO CHANGE PAGE MARGINS NUMERICALLY (PAGE LAYOUT MENU)

The changes you'll be making in these instructions establish the page margins for pages *yet to be created*. To apply them to existing pages, see the last two steps.

• Click the Page Layout Tool ▣ . Finale switches to Page View, if it's not already there.

• Choose Format from the Special menu. The Format Variables box appears.

• Enter new values in the Page Margins boxes. Margin values are measured in EVPUs, of which there are 288 per inch. These numbers are the distances *from the edge of the page*; so, if the page size changes, the margins remain constant in relation to the edge of the page. These measurements are positive if the margin is *above* or to the *right* of the edge of the page, and negative if the margin is *below* or to the *left* of the edge of the page. The four boxes are: Top margin, Left margin, Right margin, Bottom margin.

• Click OK. The changes you've made will affect only *new pages* added to the piece by Finale, unless you perform one of the following additional steps.

• To apply the new margin settings to *one* existing page, click the page itself to enter the Page Layout window, then click Default.

• To apply the new margins to all existing pages, click a page to enter the Page layout window, choose Global Adjustment from the Page Layout menu, then click Default. Alternate method: click a page to enter the Page layout window, choose Redefine All Pages from the Page Layout menu, then click OK.

Margins (system) See "Systems."

Measure layout For information regarding the relative *widths* of the measures in a particular system, see "Measures—To adjust measure widths in a system."

You can control the page layout of measures in Finale through the use of *measure groups*. A measure group is a set of measures whose positions are fixed so that even if the

arrangement of other measures changes, those in a group will remain together in the same system.

This kind of control over measure layout is especially useful when you're fine-tuning a piece's layout—avoiding an awkward page turn, forcing a key change to fall at the beginning of a system, and so on.

The measures you rearrange in the following instructions become *locked* into the arrangement you specify. They won't be affected by future measure-rearranging commands like Recalc Music or even Start a New System of Staves (see "To create a system break," below). The only way to remove measure groups from the piece is to choose Recalc Music from the Edit menu while pressing Shift.

To MOVE A MEASURE TO THE PREVIOUS (OR NEXT) SYSTEM

Before you perform this or any significant page layout action, be sure to choose Recalc Music from the Edit menu. (If you're in Page View, be sure to choose Recalc Music while you're viewing the first page, since Recalc Music only affects the region from the current page to the end of the piece.)

- If you're not in Page View, choose Page View from the View menu.
- Click the Mass Mover Tool ⊞ , and click the measure to be moved. If you want to move more than one measure to the next system—the last two on a line, for example— click the *first* measure of the group to be moved. If you want to move more than one measure to the *previous* system, click the *last* measure of the group to be moved.
- Press the Up or Down arrow key. If you press the Up arrow, the selected measure (and any that precede it in the system) move to the previous system. If you press the Down arrow, the measure or measures move to the next system. In either case, Finale then *automatically* recalculates the music, just as though you'd chosen Recalc Music from the Edit menu.

You've just created a *measure group*, Finale's system of locking measures within a system. Once a measure has been manipulated in this way, the measures in its new system are *locked* into this arrangement, and they won't be affected by future measure-rearranging commands like Recalc Music or even Start a New System of Staves (see "To create a system break," below). The only way to remove measure groups from the piece is to choose Recalc Music from the Edit menu while pressing Shift.

To SPECIFY A NUMBER OF MEASURES PER SYSTEM

See "Measures per line."

To REMOVE MEASURE GROUPS

This process will undo the procedures above, restoring all measures to "floating" status—meaning their system affiliation may change as the page layout changes.

- While pressing Shift, choose Recalc Music from the Edit menu. A Shift–Recalc Music works exactly like the normal Recalc Music command: it only affects the pages of your piece *from the page you're viewing to the last page.* If you've carefully created measure groups on the first page, for example, you won't disturb them if you perform a Shift–Recalc Music command while viewing page 2.

To CREATE A SYSTEM BREAK

You can command a specified measure to begin a new system, no matter what the measure layout may be in other systems.

- Click the Measure Attributes tool ⊞ . A handle appears on each barli--
- Double-click the handle on the *right* barline of the measure you want to begin a new system. In effect, you're clicking the barline *after* the one that will be at the system break. The Measure Attributes dialog box appears.

- Click Start a New System of Staves. Click OK.
- Choose Recalc Music from the Edit menu. The specified measure now begins a new system. It will begin a new system, no matter how the page layout changes—unless you set up measure groups. Be careful how you use this technique, however, it could result in unusual measure widths preceding the affected measure (for example, the preceding single measure could stretch across the entire system).

TO SPLIT A MEASURE ACROSS A LINE BREAK

See "Measures—To split a measure across a line break."

Measure numbers

You can create different *regions* of measure numbers in your piece, each with a different font, position, and numbering scheme. If you want measure numbers to occur only at specific places in the score to serve as rehearsal numbers, see "To insert a measure number where none exists," below (see also "Rehearsal letters").

TO CREATE MEASURE NUMBERS

- Click the Measure Number Tool ⊞. The Measure Number Map dialog box appears.
- Enter the Start Measure and End Measure for this region. The Start and End measures are the *actual* measures in the piece. They have nothing to do with what you're going to *call* them. For example, if the piece begins with a pickup measure, you'll probably want what is actually measure 2 to be *numbered* as measure 1. If so, type 2 into the Start Measure box. If you simply want to number every measure sequentially (a single region), type 1 into the Start Measure box and 1000 (or any number larger than your actual measure count) in the End Measure box. If you want to define a region to number only part of the piece, the End Measure is the measure *immediately following* the last measure to be numbered.
- Click Set Font to choose a font and style for this region. Click OK.
- Click *X Position* (or *Y Position*). No matter which you click, a box appears, displaying a symbolic measure number.
- Drag anywhere in this box to position the measure number relative to the measure. Click OK. You return to the Measure Number Map dialog box, where you can make other settings. For example, if you want your measures *lettered* instead of numbered, see "To create alphabetic measure numbers," below.
- Specify the Incidence of the numbers. If you click Start Line, a measure number will only appear at the beginning of a new system. If you click Multiple of __, you can specify how often a number appears. Multiple of 1 would number every measure in the region.
- If you want each measure number to be prefixed, enter the Prefix number or letter. If you entered the letter A in the Prefix box for a region with numbered measures, for example, you'd create a sequence of measures labeled A15, A16, A17, and so on. On the other hand, if you entered the number 21 in the Prefix box for a region with lettered measures, you'd create a sequence of measures labeled 21a, 21b, 21c, and so on. (The prefix has a maximum length of two letters or numbers.)
- If you want a geometric enclosure around each measure number, click Enclosures. A dialog box appears, listing possible enclosure shapes. Make a selection and click OK. If you want every measure number in the region to be enclosed, select Every Number. If you click Selected Numbers, *no* measure numbers will be enclosed when you first return to the score. To add the enclosure you specified to a particular measure number, simply double-click the number's handle and click Use Enclosure.
- If you don't want the measure numbers to begin with 1, enter a number in the Offset to Measure text box. This number tells Finale how many measures come before the Start Measure. Use this feature any time you want the number of the starting measure to be

any number other than 1. You'll find this feature useful if you want to begin a numbered region with, for example, the number 50. In this case, you would enter 49 in the Offset to Measure box.

- To set up the parameters for another region, click Next. To create a region before the current one, click Insert. To remove a region, click Delete.

- Click OK. The numbers appear in every measure in every staff. Each number has a handle.

TO CREATE ALPHABETIC MEASURE NUMBERS

- Click the Measure Number Tool 🔳 . The Measure Number dialog box appears.

- Specify the Start Measure and End Measure. For a definition of these terms, see "To create measure numbers," above.

- Enter the letter A in the *Starting Character* box. You can use upper or lower case.

- Click Count From One (to deselect it), No Zero, and Double Up (if desired). Count From One and No Zero are special Finale options that let Finale know whether it's labeling measures with letters or numbers (see "Measure Number Map dialog box" in *Finale Reference* for a full description of these options). For letters, Count From One shouldn't be selected. Select No Zero instead.

  Double Up means that when the letters get to Z, the alphabet will start over as double letters: AA, BB, CC, and so on. Otherwise, they'll behave like numbers: AA, AB, AC, and so on.

- Change the Numbering Base to 26. Set the font, position, enclosure options, and incidence as described above (see "To create measure numbers").

- Click OK.

TO REMOVE MEASURE NUMBERS FROM A STAFF

- Click the Staff Attributes Tool 🔳 . A handle appears on each staff.

- Click the staff whose numbers you want to "turn off." The Staff Attributes dialog box appears.

- In the Don't Draw section, click Measure Numbers. Click OK.

TO MOVE A MEASURE NUMBER

- If the measure number handles aren't already visible, click the Measure Number Tool 🔳 . When the dialog box appears, click OK.

- Drag a number by its handle to reposition it. Select it and press the arrow keys to "nudge" it for fine positioning. To restore a number to its original positioning, click its handle and press Delete. A dialog box appears, asking what aspect of the measure number you want to remove. Click Restore.

TO INSERT A MEASURE NUMBER WHERE NONE EXISTS

You can only "force" a number if the target measure is part of a measure numbering region you've defined. In general, you'll use this feature to place measure numbers at important musical moments. If you've defined a certain region to display a measure number every ten bars, for example, but you want to number a key change measure, you can use this feature to display a number even if one wouldn't ordinarily appear. You can also use this ability to create rehearsal numbers—an enclosed number at the beginning of each section, for example.

- If the Measure Number Tool 🔳 isn't already selected, click it and click Cancel in the dialog box.

- Click a measure that doesn't have a number. The measure must be within a region that has been defined for some kind of measure numbering. A dialog box appears, asking if you want to "force" a measure number.

- Click Yes. For complete measure numbering freedom, you could specify a numbering region whose incidence is Multiple of 1000 (for example). In other words, no measure (except the first) would display a number. Measure numbering could then be at your discretion—click any measure to "force" a measure number to appear.
- To remove a forced measure number, click its handle and press Delete. When the dialog box appears, click Forced Delete.

TO RESHAPE OR REMOVE A MEASURE NUMBER'S ENCLOSURE

The Measure Number Map dialog box offers two ways of creating enclosures around measure numbers. If you click Enclosures and then click *Every Number*, Finale places an an enclosure around every number in the region. While you can resize an individual enclosure of this type, you can't remove it.

If you click Enclosures and then *Selected Numbers*, you add enclosures to one number at a time by double-clicking its handle and then clicking Use Enclosure. You can both resize *and* remove an individual enclosure of this type.

- If the measure number handles aren't already visible, click the Measure Number Tool ▣. When the dialog box appears, click OK.
- Double-click the handle of an enclosed measure number. A box appears, letting you reshape the enclosure and reposition the number within it.
- If you want to remove the enclosure, click Don't Use Enclosure. You return to the score. This removes the enclosure for a number set to show enclosures for Selected Numbers only—not an every number.
- If you want to modify the enclosure, drag the top and side handles to change its height and width. Drag the number's handle to reposition the number within the enclosure. Change the line thickness, if desired. The line thickness is measured in points (of which there are 72 per inch). The two boxes represent a whole digit and a decimal digit.
- Click Use Enclosure.

Measures See also "Measure layout."

TO ADD A SINGLE BLANK MEASURE AT THE END OF THE PIECE
- Click the Measure Add Tool ▣.

TO ADD A NUMBER OF BLANK MEASURES AT THE END OF THE PIECE
- CTRL-click the Measure Add Tool ▣. A box appears, asking how many measures you want to add.
- Enter the desired number of measures. Click OK. You can also choose Add Measures from the Mass Edit menu. The same dialog box appears.

TO INSERT BLANK MEASURES WITHIN A PIECE
- Click the Mass Mover Tool ▣.
- Click the measure *after* the point of insertion. The Mass Edit menu appears. (Even if there is more than one staff, click a single measure. Finale adds a blank measure to each staff.)
- Choose Insert Measures from the Mass Edit menu. A box appears, asking how many measures you want to insert.
- Enter the desired number of measures. Click OK.

To Erase or Remove Measures

- Click the Mass Mover Tool ▣.

- Select the measures you want to be erased or removed. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of a staff to select the entire staff, or choose Select All from the Edit menu to select the entire file. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling.

- Press Delete. A box appears, asking whether you want to *erase* the notes, leaving behind empty measures (Clear), or *remove* the measures entirely from the piece (Delete). If you click Delete, the selected measures will be removed from *every staff*, even if only one is selected.

- Click Clear (to erase the notes) or Delete (to remove the measures). You can also choose Delete Measures from the Mass Edit menu. The same dialog box will appear.

To Delete a Measure from a Single Staff

In general, when you remove a measure from the score, Finale removes the target measure from *every staff in the score*. Using the following technique, you can remove a measure from a single staff (in effect) by *sliding* the subsequent measures one measure to the left.

- Click the Mass Mover Tool ▣, and click the next measure *after* the measure you want to delete. The Mass Mover and Mass Edit menus appear.

- Choose Set Selection from the Mass Mover menu. A dialog box appears. Finale has already entered the staff name (or number) and measure number of the measure you clicked in the From Measure/Staff and To Measure/Staff boxes. To correctly specify the region you want to select (the measure you clicked to the end of the staff), simply change the measure number in the To Measure box.

- Enter 1000 in the To Measure box. If you know exactly how many measures there are in your piece, you can enter the last measure's number in this box. Otherwise, just enter a number that you're sure is higher than the actual measure count.

- Click OK.

- Drag the first source measure so that it's superimposed on the measure you want to "delete." Finale asks you how many times you want the selected music copied. The default value, once, is what you want.

- Click OK. Finale moves the music you selected one measure to the left, in effect eliminating the measure you wanted to remove. There may now be an extra measure at the *end* of the staff. Just erase or remove it (see "To erase or remove measures," above).

To Widen or Narrow a Single Measure

- Click the Measure Attributes Tool ▣. A handle appears on each barline.
- Drag the right barline of the target measure to the right or left.

To Adjust Measure Widths in a System

It's useful to remember that you can adjust the *relative* widths of the measures in any particular system.

- Go to Page View, if Finale's not already there. You change views by choosing Page View from the View menu.

- Choose Recalc Music from the Edit menu.

- Click the Measure Attributes Tool ▣. A handle appears on every barline.

- Drag the handle of any measure to the right or left. As you make one measure wider, the one *to its right* becomes narrower. (You can adjust all measures in a system *except the last one* with this method.)

TO WIDEN, NARROW, OR SPECIFY THE WIDTHS OF MANY MEASURES

- Click the Mass Mover Tool 🖺 .

- Select the measures to be resized. You only need to select the region in one staff. The measure widths will be changed in all staves. Select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, or an entire staff by clicking to the left of it.

- Choose Change Width from the Mass Edit menu. A dialog box appears, letting you specify a fixed width for all selected measures (the top option) or to add or subtract a certain amount from all selected measures. The numbers you're entering are measurements in EVPUs (288 per inch).

- If you want to set the selected measures to a uniform width, enter an EVPU value in the top box.

- If you want to widen or narrow the selected measures, enter a positive (to widen) or negative (to narrow) EVPU value in the bottom box.

- Click OK. Be sure to choose Recalc Music from the Edit menu before printing or viewing in Page View.

TO SPLIT A MEASURE ACROSS A LINE BREAK

There may be times when you want a very long measure (such as a cadenza measure) to break in half if it straddles a system break. The following instructions result in a measure that *may* break at the end of a system, but only if Finale thinks it's necessary. You can then *force* the measure to break, as described below.

- Click the Measure Attributes Tool 🖾 . A handle appears on every barline.

- Double-click the barline handle at the *end* of the measure you want to split. The Measure Attributes window appears.

- Click Provide Split Points. Click OK. When you return to the score, a new handle appears at the bottom of the barline you clicked.

- Click the handle at the bottom of the barline. A special "split-point rectangle" appears above the measure.

- Double-click the split-point rectangle. A handle appears. Drag it horizontally to tell Finale precisely where it should break the measure (if necessary). Double-click in as many places as you want to provide additional permissible split points. To remove a split point handle, click it and press Delete.

- Click the screen to hide the split-point rectangle.

- Choose Recalc Music from the Edit menu. You won't see the effects of your split point until you choose Recalc Music.

  To *force* the measure to split, click the Mass Mover Tool 🖺 , click the measure you want to move, and press the Up or Down arrow, as described in "Measure layout—To move a measure to the previous (or next) system." (If you've specified more than one split point, Finale breaks the measure at the *first* designated split point.)

Measures per line

TO SPECIFY A NUMBER OF MEASURES PER LINE (SYSTEM)

- Click the Page Layout Tool 🖾 . Finale switches to Page View, if it's not already there.

- Choose Group Measures from the Page Layout menu. A dialog box appears.

- Specify the number of measures per line for this file.

- Click OK. This technique creates *measure groups*, which don't float from one system to another as the page layout changes. See "Measure layout" for more information on measure groups.

TO REMOVE MEASURE GROUPS

This process will undo the procedure above, restoring all measures to "floating" status—in other words, their system affiliation may change as the page layout changes.

• While pressing Shift, choose Recalc Music from the Edit menu.

Measure repeat signs

The measure repeat symbol (✗), often used in rhythm parts, indicates that the measure in which it appears is to be played as a repetition of the previous measure. You create the symbol as a Score Expression, which allows you to place it in more than one staff at a time, and also gives you the option of creating a *two*-measure repeat mark.

TO CREATE A MEASURE REPEAT SIGN

If you're orchestrating for a rhythm section, you can use the Score Expression Tool to place the symbol in several staves at once. First, you'll need to hide the default whole rest. This example assumes that you're placing the symbol in a currently empty measure.

• Click the Speedy Note Entry Tool 🔲 , and click the target measure. The editing frame appears.

• With Use MIDI Keyboard selected (SpeedOptions menu), press the 5 key. A quarter rest appears.

• Position the insertion bar on the quarter rest, and press the letter O key. The whole rest is now hidden. (If pressing the O key doesn't seem to work, make sure your Caps Lock key isn't down.)

• Click the Score Expression Tool 🎵 , then click the empty measure. The Score Expression Selection box appears. If the measure repeat sign already appears, click it and skip the next three steps.

• Click Create. The Text Expression Designer appears.

• Type ALT0212.

• Click Set Font and set the font to Petrucci 24. Click OK twice.

• Click Select. To specify the staves in which the repeat sign is to appear, click "Staff List". See "Expressions: Score Expressions" for more information.
To center the repeat sign vertically on the staff, enter –72 in the Vertical Offset text box.

• Click OK. To copy the measure repeat sign into other measures, click the Mass Mover Tool, and drag the altered measure on top of the target measure (see "Copying music").

TO MOVE OR DELETE THE MEASURE REPEAT SIGN

• Click the Score Expression Tool 🎵 .

• Click the measure the repeat sign is attached to. Its handle appears.

• Drag the handle to reposition the expression. Select it and "nudge" it with the arrow keys for fine positioning. Select it and press Delete to remove it.

Melisma

See also "Slurs", "Vocal music—To beam according to lyric syllables."

A melisma is a series of notes sung on the same lyric syllable. When Finale assigns lyric syllables to a melody, it has no way of knowing which melody notes are melismatic. Therefore, when you're creating lyrics (if you plan to have Finale assign them to notes automatically), you can anticipate the melismatic passages by creating an *invisible syllable* for each note of the melisma.

To CREATE INVISIBLE SYLLABLES WHEN TYPING LYRICS

- Click the Lyrics Tool [6]. The Lyrics menu appears.
- Choose Mass Create from the Lyrics menu. Finale's text processor appears. Type the lyrics in the usual way, up to the melisma.
- Type the syllable to be sustained, followed by the usual space or hyphen. For each subsequent note of the melisma, type ALT0160, space. Finale considers each ALT0160 a syllable. Therefore, you need to separate it as you would any syllable—with a space or a hyphen. Thus, you type an ALT0160 followed by a regular space (or a hyphen) for each subsequent note of the melisma. Complete the remaining lyrics in the same way.
- Click OK. When you enter these lyrics using the CTRL–Click Assignment method (see "Lyrics"), Finale distributes the invisible melismatic syllables you just created to the corresponding notes of the melody.

To SHIFT LYRICS TO THE RIGHT OR LEFT

If you didn't anticipate the melisma (by typing ALT0160s, as described above) when entering the lyrics in the Mass Create window, you can adjust misaligned lyrics by using the Lyric Shift command. See "Lyrics—To correct misaligned lyrics" for full instructions.

To DRAW A "WORD EXTENSION" UNDERLINE

When a syllable's note is tied or sustained through to another note, a common practice is to draw an underline following the syllable to indicate its suspension. See "Lyrics—To draw a 'word extension' underline," and "Lyrics—To adjust the position of 'word extension' underlines."

Meters See "Time signatures."

Metronome When you're recording a real-time performance in Finale, you can provide the "click track" yourself by tapping a key, a pedal, and so on. Or, you can have Finale provide the click track by playing a certain MIDI note in rhythm.

To HEAR A CLICK TRACK IN HYPERSCRIBE

- Click the HyperScribe Tool [⊞]. The HyperScribe menu appears.
- Choose HyperClick from the HyperScribe menu. The HyperClick dialog box appears.
- Enter the tempo in the Tempo box, if you know it. If you want Finale to calculate your tempo for you, click Listen. Then tap any key in the tempo you want. Finale will calculate an average from your tap tempo and change the number in the Tempo box accordingly.
- Specify the trigger by clicking the Trigger listen box and playing the note or controller. The trigger is the MIDI signal that starts the click track. The default codes in the Trigger boxes are set up to respond to the sustain pedal for most synthesizers, so that a tap on the pedal sets the click track in motion.
- Specify the sound of the click track by clicking the Click Output Listen box and playing the appropriate note. Enter a MIDI channel number, if necessary. You might want to use a rim shot or other short percussive sound on a drum machine, or a very high note on your synthesizer. If you like, you can change the duration of the click sound by changing the Duration number. The default duration is half a second.
- Click OK. You return to the score. After making any necessary settings from the Hyper-Scribe menu, click the measure at which you want to begin your transcription. To start the click track, press the key or pedal you've designated as the trigger. This first tap represents the *first beat* of the recording. The first click you'll hear represents *beat two*.

In other words, in common time, you tap the trigger, and Finale clicks "2–3–4." Therefore, you should begin to play *as* you strike the trigger device.

If the metronome catches you by surprise, click (with the mouse) to stop. Click the first measure again and repeat the process. You may even want to let one measure of clicking go by before you begin to play, so that you'll have some idea of the tempo. When you're done playing, just delete the empty first measure created in the process.

TO HEAR A CLICK TRACK IN THE TRANSCRIPTION TOOL

In the Transcription Tool, a click track is nothing more than playback of Time Tags that Finale has placed automatically (see "Real-time recording [Transcription Tool]" for a description of Time Tags). You can specify various characteristics of the click: its pitch, MIDI channel, length of click, and so on.

- Click the Transcription Tool 📖 , and click a measure in the score. The measure you click will be the first measure of the transcription when you transcribe the performance. You enter the Transcription window.

- Click the word In at the lower-right corner of the Transcription window, and enter the time, in hours, minutes, seconds, and thousandths of a second, at which you want the click track to begin. If you want the click track to begin immediately at the beginning of your recording, leave the indicator set at 00:00:00:000. (Instead of typing numbers, you can also specify the appropriate point in the music by *clicking* in the display area.)

- Click the word Out at the lower-right corner of the Transcription window, and enter the time, in hours, minutes, seconds, and thousandths of a second, at which you want the click track to stop. In other words, if you guess your performance will last two minutes, type 2:00:000. (Instead of typing numbers, you can also specify the appropriate point in the music by *clicking* in the display area.)

Instead of entering numbers with the In and Out indicators, you can simply drag the mouse through the keyboard display area (marked by a piano keyboard at the left side). The In and Out numbers will change to accurately record the width of the highlighted area.

- Enter the tempo in the Set to text box. The number you enter here is a standard metronome marking (beats per minute), and allows you to specify the tempo of the click track.

- Choose Click Output from the Time Tag menu. The Click Output Type dialog box appears.

- Specify the sound of the click track by clicking Listen To MIDI and playing the appropriate note. Finale automatically takes note of the MIDI channel you used to generate the sample click.

  You might want to use a rim shot or other short percussive sound on a drum machine, or a very high note on your synthesizer. If you like, you can change the duration of the click sound by changing the Duration number. The default duration is a half second.

- Click OK. You return to the Transcription window.

- Click Wait Till. When you click Wait Till, Finale goes into pause mode, awaiting the first note of your performance. Make sure that the Record at End radio button is selected (under the word Keyboard) and that Play is selected (under the words Time Tag).

- Record your performance as usual. As you play, Finale will record your performance while generating a click track of the tempo, sound, and duration you specified.

Metronome marking
Because a metronome marking generally appears in all parts, it's best to create it as a Score Expression, which allows you to specify in which staves it will appear.

TO CREATE A METRONOME MARKING (SUCH AS ♩=120)

- Click the Score Expression Tool ☑.
- Click above the measure to which you want to attach the marking. The Score Expression Selection box appears.
- Click Create. The Text Expression Designer appears.
- Create the metronome marking by typing the appropriate characters, according to the following table. Refer to the next table for the "number" ALT characters.

Keystrokes	Resultant marking:
Lower-case x, then ALT0200, then ALT characters	♪=72
Lower-case e, lower-case k, then ALT0200, then ALT characters	♪=72
Lower-case q, then ALT0200, then ALT characters	♩=72
Lower-case q, lower-case k, then ALT0200, then ALT characters	♩.=72
Lower-case h, then ALT0200, then ALT characters	♩=72
Lower-case w, then ALT0200, then ALT characters	o=72

In the Petrucci music font, the x, e, q, h, and w characters correspond to the ♪, ♪, ♩, ♩, and o symbols, respectively. A lower-case k produces the dot, ALT0200 creates the equal sign, and the small numbers are produced using "ALT" characters, according to the table below.

Keystroke	Resultant marking:
ALT0193	1
ALT0170	2
ALT0163	3
ALT0162	4
ALT0176	5
ALT0164	6
ALT0166	7
ALT0165	8
ALT0187	9
ALT0188	0

As you type (in the Text Expression Designer), all you'll see are strange symbols. When the completed Text Expression appears in the score, however, they'll be translated into the Petrucci font equivalents to produce the appropriate tempo marking.

- Click Set Font. Set the font to Petrucci 24 point, and click OK. You can choose a larger or smaller point size if you want the tempo marking to appear larger or smaller.
- Click OK or Select in each dialog box to return to the score.

TO MOVE OR DELETE THE MARKING

- Click the Score Expression Tool ☑.
- Click the measure to which the marking was attached. Its handle appears.
- Drag the handle to move the marking. Select it and press Delete to remove it.

TO DEFINE THE METRONOME MARKING FOR PLAYBACK

- Click the Score Expression Tool ☑. If you haven't yet placed the marking in the score, click any measure. When the palette appears, click the metronome marking, click Edit, click Playback, then skip to the instruction marked by the coda sign.
- Click the measure to which the marking was attached. Its handle appears.
- CTRL-Shift–double-click the handle. The Playback Definition box appears.
- Click Tempo. In the Set To Value box, enter the metronome setting. For example, if your tempo is ♩ = 60 beats per minute, type 60 in the Set To Value box.

The number in the Set To Value box normally refers to the *quarter notes–per–minute* setting for the new tempo. If your tempo is based on some other note value (a half note, for example), you can let Finale know by selecting the Use AuxData 1 box at the bottom of the window. Enter the EDU equivalent of this basic duration value in the Use AuxData 1 text box. There are 1024 EDUs per quarter note, so you'd enter 2048 to indicate a half note pulse. To indicate a tempo of 120 *eighth notes* per minute, you'd enter 512 in the Use AuxData 1 box and 120 in the Set To Value box.

• Click OK or Select in each dialog box to return to the score.

Microtonal tunings See "Nonstandard key signatures."

MIDI

MIDI, for Musical Instrument Digital Interface, is the computer language that computers and synthesizers use to "speak" to each other. If you need help setting up your MIDI system, consult the *Finale Startup Guide*. If you're interested in some of the more technical aspects of MIDI, see Appendix 4 of *Finale Reference*, "More on MIDI."

There are dozens of Finale features that make use of MIDI. If you're interested in affecting MIDI playback through the use of graphic musical expression marks, see "Expressions" (or see the entry for the individual marking). If you want to work with a specific MIDI data type, see the individual entries "Key velocity," " Patches," " Controllers (MIDI Controllers)," and "Pitch wheel."

If you're interested in step-time MIDI input, see "Step-time music input." For information on recording and transcribing real-time MIDI performances, see "Real-time transcription (HyperScribe)" and "Real-time recording (Transcription Tool)."

To create or transcribe a standard MIDI file for exchanging with sequencer programs, see "MIDI files."

To assign the staves in a piece to MIDI playback channels, see "MIDI channels." For information on sending patch changes, see "Patches."

To synchronize Finale's MIDI input or output to that of an external sequencer or another computer, see "MIDI sync."

TO SEND AN "ALL NOTES OFF" MESSAGE

On rare occasions, you may encounter a situation called *MIDI lock*, in which your synthesizer is "stuck" on a certain note or chord.

• Choose MIDI Panic Button from the Special menu. Finale sends an "all notes off" message to every note of every channel. You should find that, after a moment, the situation is corrected.

TO COPY OR ERASE CAPTURED MIDI DATA

Once you've *captured* MIDI data (by clicking Capture Performance or Capture MIDI Xpressions after recording with the Transcription Tool), you can either copy this MIDI data to other parts of the score or erase it completely from a selected region. If you're creating a piano piece in which the sustain pedal should be pressed at the beginning of each measure and released at the end, you only have to create this pattern of MIDI controller data once using the Transcription Tool. Thereafter, you can simply copy the "pedaling" data from that one measure to any other measures in the score.

When you "erase" MIDI data, you're erasing *variations from the default value* of the particular MIDI data you're erasing. For example, if you erase Performance Data from a region, you're effectively restoring the default velocity value to *every* note in the region. In short, you're restoring the playback of the selected region to a straightforward feel.

- Click the Mass Mover Tool ⊞ . The Mass Mover menu appears.

- Select a source region to *erase*. The Mass Edit menu appears. You can select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, an entire staff by clicking to the left of it, or the entire piece by choosing Select All from the Edit menu

- Select the MIDI data type you want to erase. From the Mass Edit menu, choose Erase, then Only the Selected Items, then Measures (Time Dilation or MIDI Expressions) or Entries (Only the Selected Items, then Performance Data). Click OK or Select in each dialog box to return to the score.

- To *copy* the selected MIDI data type to another region, choose Move Only from the Mass Mover menu. Then choose Measure Items (Time Dilation or MIDI Expressions) or Entry Items (Performance Data). Click OK in each dialog box to return to the score.

- Drag the first source measure so that it's superimposed on the first target measure. If the first target measure is not on-screen, scroll until you see it, then CTRL-Shift-click it.
  In either case, the How Many Times dialog box appears (unless the first target measure is directly above or below the source measures).

- Type the number of times you want the material (horizontally) copied. Click OK.

MIDI channels
Finale can play your music over a total of 64 MIDI channels—16 for each MIDI Interface connected to your computer. Furthermore, each staff can play back over a different MIDI channel, or even several channels.

If you plan to work extensively with staff-to-MIDI channel mappings, you should become familiar with the concept of Output Routes. An Output Route is a dynamically independent subdivision of a MIDI channel. By setting several staves to different Output Routes within the same MIDI channel, you can preserve their individual dynamics. For example, in the piano part below, both staves are playing MIDI channel 1 (which is set to a piano sound), but each has a different Output Route number to preserve its independent dynamics.
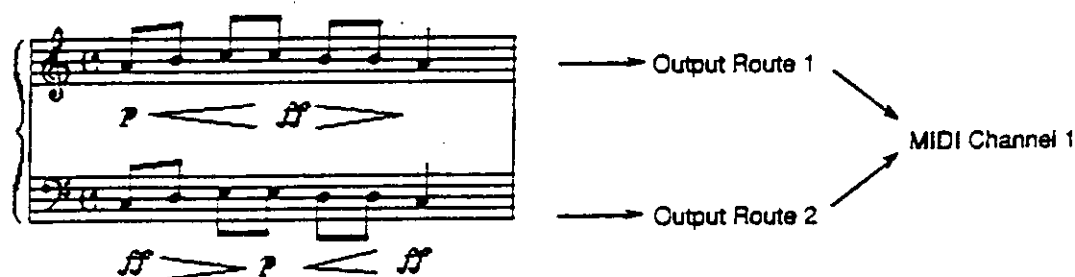
There are 64 possible Output Routes in Finale. If you simply want each staff to play on its own MIDI channel, set the Output Route for each to the same number as its channel: Staff 1 is Output Route 1 on MIDI channel 1, and so on. Because of the complexity of the possibilities, Finale provides three ways of setting up Output Route and MIDI channel mappings.

TO SPECIFY THE MIDI PORT AND NUMBER OF CHANNELS

- Choose MIDI Setup from the Special menu. The MIDI Device Assignment and Configuration box appears.

- Click an Assign button to select a MIDI Device. The MIDI Device Selection for Port (#) dialog box appears. Port 0 = MIDI "channels" 1–16, Port 1 = MIDI "channels" 17–32, Port 2 = MIDI "channels" 33–48, Port 3 = MIDI "channels" 49–64. Even though MIDI has only 16 channels, Finale can address up to four MIDI devices, each of which gets a separate set of "channels."

- From the list that appears, select the MIDI driver that corresponds to your MIDI interface, and click Configure. The MIDI Configuration dialog box appears for the MIDI driver you selected. MPUDRVR.EXE is for the Roland MPU-401 or compatible, IMFDRVR.EXE is for the IBM Music Feature or compatible, and C1DRVR.EXE is for the Yamaha C1.
- Make the settings for your particular MIDI interface and click OK. See "MIDI Configuration dialog box" in *Finale Reference* for details.
- Click Select and click a "Rcv" radio button to specify the port from which you want to receive MIDI input. While Finale can play back over multiple ports, it only records from one port at a time.
- Repeat the last four steps for each MIDI interface you want to configure. Each MIDI interface you configure allows 16 MIDI Channels.
- Click OK.

TO ASSIGN STAVES TO MIDI CHANNELS (EASY METHOD)

One of the Finale libraries available for loading into any piece is an *Output Route Library*. This library contains a set of straightforward, sequential channel mappings: Staff 1—Output Route 1—MIDI channel 1, and so on up to 64. If you simply want to set every staff to its own channel, this is the quick way to do it.

- Choose Load Libraries from the File menu. The Load File Name dialog box appears, displaying any available libraries.
- Locate the LIBRS directory. Open it and double-click OUTPUTRT.LIB. That's all there is to it. Your first 64 staves are now sequentially mapped to the first "64" MIDI channels.

TO ASSIGN STAVES TO MIDI CHANNELS (MANUAL METHOD)

- Click the Staff Attributes Tool ⊞. A handle appears on each staff.
- Click the first staff's handle. The Staff Attributes window appears.
- Click Set Output. A dialog box appears, letting you specify Output Routes and MIDI channels for various elements of the staff.
- Specify the Output Routes and MIDI channels for the layers and chord symbols. If you simply want to assign each staff to its own unique MIDI channel, enter the same number for Output Route and MIDI channel, in all boxes. If you don't want chord symbols to play back, route them to an unused MIDI channel.

  You can also enter a number in the *Expressions* Output Route text box. If you want any Score Expressions in the staff to affect the notes in the staff, this number should match that of the layer (1 or 2) that you want Score Expressions to affect. Otherwise (unless you plan to connect the computer to a MIDI-controlled mixing or lighting board) you can leave the Expression boxes alone.
- Click OK.
- Click Next to advance to the next staff. (Click Prev to return to the previous staff.) Click Set Output for the new staff and repeat the process. Continue until you've mapped all the desired staves.
- Click OK.

TO ASSIGN STAVES TO MIDI CHANNELS (ADVANCED METHOD)

- Click the Playback Tool ⑨ . The Playback menu appears.
- Choose Output Routes from the Playback menu. The Output Route Configuration window appears. Across the top of the screen you see Finale's 64 Output Routes. Down the side of the screen you see the names (or numbers) of the staves in your file. (To scroll the list of staves, click the up or down arrows above the column.) At the bottom of the screen, make sure that the View Staff Configuration button is selected, so that you're viewing the arrangement of staves.

- Drag the square handle for each element (Layers 1 and 2, Chords, Expressions) of each staff to the desired Output Route. You can only drag one element (Layers, Chords, Expressions) at a time. Click the desired element to see its handle position. Using this matrix, you can get an overall view of your Output Route/Staff configuration.
- Click View MIDI Configuration. The display changes to show you how the Output Routes (which you assigned to staves in View Staff Configuration mode) are, in turn, assigned to MIDI channels (left side of the screen).
- Drag the square handle representing each Output Route to the desired MIDI channel. By flipping back and forth between View Staff Configuration and View MIDI Configuration, you can create very complex relationships of staves, elements of staves (Layers, Chords, and so on), Output Routes, and MIDI channels.
- Click OK.

TO CHANGE A MIDI CHANNEL IN MID-STAFF

To change a staff's MIDI channel within a piece, you'll have to create a Staff Expression that's defined for playback as a MIDI channel number.

- Click the Staff Expression Tool 🖭.
- Click on, above, or below the note to which you want to attach the channel-change expression. The Staff Expression Selection box appears.
- If you've previously created the channel-change expression, double-click it. The new expression appears in the score, where you can adjust its position.
- If the expression doesn't appear in the list, click Create. The Text Expression Designer appears.
- Type the text for your Text Expression. You might want to call an expression that switches playback to channel 2 "To channel 2," for example. Click Set Font to set the type style. If you want this marking to be invisible, don't type anything at all. But remember where you clicked to "attach" the marking, or you may *never* be able to find its handle again.
- Click Playback. The Playback Definition dialog box appears.
- Click MIDI Channel. Enter the channel number in the Set To Value box.
- Click OK or Select in each dialog box to return to the score.

TO MOVE OR DELETE THE CHANNEL-CHANGE EXPRESSION

- Click the Staff Expression Tool 🖭.
- Click the note to which the expression was attached. Its handle appears.
- Drag the handle to reposition the expression. Select it and press Delete to remove it.

TO ASSIGN A STAFF TO MORE THAN ONE MIDI CHANNEL

Finale normally allows you to route each staff to a single MIDI channel. You may want the staff's contents transmitted on more than one channel—for example, if you want to mix the sounds from two different patches. To create this arrangement, you have to create a Staff Expression (which can be invisible, if you like) defined for playback. This marking's playback definition involves the creation of a *MIDI data dump*.

- Click the Staff Expression Tool 🖭. Click on, above, or below the note at which the music should begin playing over additional MIDI channels. The Staff Expression Selection dialog box appears.
- Click Create. The Text Expression Definition dialog box appears.
- Enter the text (if any) for your data dump expression. Click Set Font if you want to specify the font and style of the new Text Expression. (You can leave the text box blank, if you wish.)
- Click Playback. The Playback Definition dialog box appears.

- Click Dump. The Playback Data Dump dialog box appears.
- In the Number of Units box, enter 2 or 3 (depending on whether you want the staff's playback routed to 1 or 2 *additional* MIDI channels). A staff can play over up to three MIDI channels, *including* the primary MIDI channel you've established for the staff.
- In the first Data box, enter $FF. This code, including the dollar sign, is a hexadecimal MIDI code that tells your synthesizer to prepare to receive additional MIDI channel information.
- In the next Data boxes, enter one or two numbers, corresponding to the MIDI channels you want the staff's playback routed to *minus one*. In other words, if you want the staff to play over channels 5 and 6 (in *addition* to its primary MIDI channel), enter 4 in the second Data box and 5 in the third, because you must *subtract one* from each MIDI channel number. (Also be sure to delete the default "$00" value from each text box before entering your MIDI channel numbers.)

  When Finale plays your score and reaches the Staff Expression you're creating, it will reroute the playback to the MIDI channels you've just specified.

- Click OK or Select in each dialog box to return to the score.

  Here are some other hexadecimal codes you may find useful if you plan to make extensive use of the Data Dump feature. If you want to change only *one* of the additional two MIDI channels you've specified at some point in the staff, create another Staff Expression. Define this expression to have a Data Dump Playback Definition. In the Data text box that originally displayed the MIDI channel that you *don't* want to change at this point, enter the code $FE. For example, your first Data Dump expression added channels 5 and 6 to the staff's playback. Its Data boxes displayed $FF, 4, and 5. You now want the additional channels now to be 5 and 12, so you create a new Data Dump expression. Its Data boxes should display $FF, $FE, and 11.

  Finally, you can "turn off" any additional MIDI channels you've specified with a Data Dump expression by entering $FF in the appropriate Data box. For example, your first Data Dump expression added channels 5 and 6 to the staff's playback. Its Data boxes displayed $FF, 4, and 5. You now want channel 5 to drop out, so you create a new Data Dump expression. Its Data boxes should display $FF, $FF, and $FE (because $FE, is the "don't change this channel" command).

MIDI files

Finale both imports (transcribes) and exports (writes) standard MIDI files. A MIDI file has a format that can be understood by music programs, including most sequencer programs, from different companies. If you prefer to compose by improvising in your favorite sequencer, you could save your piece as a standard MIDI file and then have Finale notate it for you.

To import a MIDI file

To create the MIDI file, follow your sequencer's instructions. There's no need to quantize the sequence, since you'll probably find Finale's quantization powers to be more effective than your sequencer's.

- Choose Open from the File menu. A list box appears. Three file types are listed at the bottom of the window.
- Click MIDI Sequencer File. The names of any available MIDI files (.MID) appear in the list box.
- Double-click the desired file name. A box appears, listing various transcription options.
- Specify the way in which you want the MIDI file extracted onto Finale staves. If you click Tracks Become Staves, each sequencer track becomes a Finale staff. If you click Channels Become Staves, the contents of each MIDI channel (regardless of their track assignments) become a Finale staff. In either case, Finale will choose a clef for each resultant staff

based on the range of notes in the track. (If it discovers that the notes in a track have a very wide range, it will automatically notate its contents on *two* staves. See "Transcribe MIDI File dialog box" in *Finale Reference* for details.)

For even further control over the track and channel extraction, click Set Track-to-Staff List. Another dialog box appears, in which you can specify extremely sophisticated track and channel mapping.

• If the MIDI file isn't quantized, click a quantization level. If you want Finale to *vary* the quantization level on a beat-by-beat basis—in particular, if there are occasional sixteenth notes, triplets, or other tuplets, click Float Quantizing. See Tutorial 5 in *Learning Finale* for more information on Floating Quantization.

• Choose Key and Time Signature options. Most MIDI files contain key and time signature information already, so you usually won't have to change the default selection (Use the File's).

• If you'll want to hear the sequence played back with its original tempo fluctuations, velocity information, and controller data, make sure Time Dilation, Performance, and MIDI Expressions are selected. These options capture the MIDI performance data from your sequence. For a more complete description of performance data, see Tutorial 5 in *Learning Finale*. You can also tell Finale to eliminate grace notes by clicking Expand Minimums. If there are to be no inner voices within a staff, click No Voice Two. If No Voice Two is left unchecked, you may get stems-up and stems-down notes where you didn't intend them (for example, if the beginning of one melody note overlaps the end of a preceding note).

• Click OK. Finale transcribes the MIDI File into standard notation. If you discover that your settings weren't quite right, you can try again—the original MIDI file is unaffected by Finale's transcription efforts. For more information about the elements of the Transcribe MIDI File dialog box, see "Transcribe MIDI File dialog box" in *Finale Reference*.

TO EXPORT A MIDI FILE OF THE ENTIRE FILE

• Prepare your Finale file. Keep in mind that any playback data will be retained in the MIDI file. This includes tempo changes (for those sequencers that support a tempo, or conductor, track), dynamics, pitch wheel data, MIDI channel assignments, and so on. Be sure to choose Playback Options from the Playback menu to specify other important playback parameters.

• Make sure that you have assigned Output Routes correctly (one for each resultant sequencer track). When Finale creates a MIDI sequencer file, it places the music you've assigned to each *Output Route* in a separate sequencer track. Therefore, make sure the Output Route configuration is set up the same way you want the resultant tracks set up. You can specify the Output Routes for the staves in your score either one staff at a time or all at once. See "MIDI channels" for further instructions.

• Choose Save As from the File menu. A Save dialog box appears.

• Click MIDI Sequencer File, and enter a name in the text box. Be sure to include the file extension ".MID" with the name.

• Click Save. Finale now asks which type of MIDI file you want to create: Format 1 (multiple tracks), Format 0 (a single, multichannel track), or *just* a tempo track. Format 1 is most common.

• Select a MIDI file format by clicking the appropriate button.

TO EXPORT A MIDI FILE OF A SELECTED PORTION OF YOUR FILE

• Prepare your Finale file. Keep in mind that any playback data will be retained in the MIDI file. This includes tempo changes (for those sequencers that support a tempo, or conductor, track), dynamics, pitch wheel data, MIDI channel assignments, and so on. Be

sure to choose Playback Options from the Playback menu to specify other important playback parameters.

- Click the Playback Tool ⑦ . The Playback menu appears.
- Choose Playback Range from the Playback menu, and specify the measures you want included in the MIDI file. Click OK.
- Choose Playback Settings from the Playback menu. The Playback Settings box appears.
- Click Create a MIDI Sequencer File, and click OK. You return to the score.
- Click a measure. Depending on your selection in the Playback Range dialog box, you click to indicate the first measure you want included in the MIDI file.
  Finale now asks which type of MIDI file you want to create: Format 1 (multiple tracks), Format 0 (a single, multichannel track), or *just* a tempo track. Format 1 is most common.
- Select a MIDI file format by clicking the appropriate button. Finale now asks you to name the MIDI file.
- Type in a name (be sure to include the file extension ".MID"), and click Save. Consult your sequencer's manual for information on importing a standard MIDI File.

MIDI lock See "MIDI."

MIDI Sync MIDI Sync signals consist of a real-time stream of MIDI data that allow two sequencers or computers to perfectly synchronize their playback or recording (providing both are equipped to send or interpret this data). Finale can both transmit and receive MIDI Sync data. In other words, you can either use Finale to "drive" external sequencers so that all play back together, or you can record new music in Finale (or listen to a playback of a Finale score) along with the tempo track of an external sequencer that's sending MIDI Sync data.

To TRANSMIT MIDI SYNC DATA WHILE PLAYING BACK A FINALE SCORE
Follow these instructions if you want Finale to be the "master" device and an external sequencer to be the "slave" (in other words, Finale provides the synchronization signal).

- Choose MIDI Setup from the Special menu. The MIDI Device Assignment and Configuration dialog box appears.
- Click Send MIDI Sync and click OK. From now on, Finale will transmit MIDI Sync any time it plays back your score. If you have connected your computer to an external sequencer (or another computer) configured to interpret this kind of MIDI message, it will wait in "pause" mode until Finale begins play, at which point the two will play in perfect synchronization.

To RECEIVE MIDI SYNC DATA WHILE PLAYING BACK A FINALE SCORE
Follow these instructions if you want Finale to be the "slave" device and an external sequencer to be the "master" (in other words, the external sequencer is providing the synchronization signal).

- Choose MIDI Setup from the Special menu. The MIDI Device Assignment and Configuration dialog box appears.
- Click the Sync radio button that corresponds to the "master" MIDI device and click OK.
- Click the Playback Tool ⑦ . The Playback menu appears.
- Choose Playback Settings from the Playback menu. The Playback Settings dialog box appears.
- Click Create a Temp Disk File and Play It, click OK, and skip to the next step. If you plan to play back the same part of your score more than once, click Create a Playback

File instead, and click OK. When you click the measure where you want playback to begin, Finale will create a new file (a *playback* file). You'll be asked to name this playback file. Do so and click OK.

Next, choose Playback Settings again from the Playback menu. This time, click Play a Playback File and click Save.

- Click the measure at which you want playback to begin. If you selected Play a Playback File in the last step, the Play File Name dialog box appears. Double-click the desired playback filename. Finale computes for a moment, then displays the Disk File Playback Options dialog box.

If you selected Create a Temp Disk File and Play It in the last step, Finale computes for a moment, then displays the Disk File Playback Options dialog box.

- Click External MIDI Clock and click OK twice. "MIDI Clock" means external MIDI sync. Finale will wait for a MIDI Start signal from the external sequencer. Once the external sequencer begins to play, Finale will automatically "sync up" to it, playing precisely together with it, even if you jump forward or backward in the external sequence.

To transmit MIDI Sync data while recording in the Transcription Tool

You can transmit MIDI Sync signals during either recording or playing back in the Transcription Tool. You might want to set up this configuration if you want to record a new track with a drum machine as accompaniment. Using this technique, Finale will "drive" the drum machine as you record new music in the Transcription window.

- Click the Transcription Tool ⬛ and click a measure. The measure you click will be the first measure of the resultant transcription. You enter the Transcription window.
- Choose Click Output from the Time Tag menu. The Click Output Type dialog box appears.
- Click Send MIDI Sync. Click OK.
- Enter Time Tags in the usual way. You can record Time Tags either by tapping a key or pedal, or by telling Finale to enter them automatically (using the Set To text box). You can find full instructions for the first method of entering Time Tags under "Real-time recording (Transcription Tool)," and for the second method under "Metronome."
- Under the words Time Tag, click Play. Proceed with your playback or recording as usual. Finale will transmit MIDI Sync instead of providing an audible click. If you have connected the computer to an external sequencer (or another computer) that has been configured to interpret this kind of MIDI message, it will wait in "pause" mode until Finale begins play, at which point the two will play in perfect synchronization.

To use the MIDI Sync signal to provide the "tap" in HyperScribe

Normally, when you're transcribing music in HyperScribe, you tap a key or pedal to provide Finale with a tempo reference. If you're using HyperScribe to transcribe music being played by an external sequencer, the sequencer can provide the tempo reference itself by transmitting MIDI Sync signals.

- Click the HyperScribe Tool ⬛ . The HyperScribe menu appears.
- Choose External MIDI Sync from the HyperScribe menu. Proceed with the usual HyperScribe preparations, concluding by clicking the first measure in which you want the transcription to appear. Finale will wait in pause mode until it receives the MIDI Sync signal, at which point it will automatically "sync up" to it, transcribing the music as it goes. No tapping is needed.

MIDI Thru MIDI Thru is the MIDI configuration whereby you play the keys on a controller keyboard, the MIDI signal travels to your computer, and the computer in turn sends the signal to another synthesizer—the one that actually produces the sound. If you have such a setup, you must turn on MIDI Echo Thru to tell Finale that it should pass incoming MIDI signals along to the next synthesizer. You can reroute the incoming MIDI data from each channel to a different outgoing channel.

To ESTABLISH MIDI THRU

- Choose MIDI Setup from the Special menu. The MIDI Device Assignment and Configuration box appears. ,
- Click MIDI Echo Thru. A channel-mapping dialog box appears. -
- "Channelize" your MIDI signal by entering numbers into the proper boxes. For example, to hear the notes you play on channel 1 on a synthesizer that is receiving channel 3, type a 3 into the first (1:) box.
- Click OK.

Minor keys Finale defaults to a *major key* system, where the scale that begins on C has no sharps or flats. In such a key system, C is considered by Finale to be scale degree zero of the scale with no sharps or flats (C major). You can, however, tell Finale that you're working in a *minor key*, where the scale that begins on C has three flats (for example), and in the scale with no sharps or flats (A minor), C is *not* considered to be the root.

If you follow the instructions below, you'll notice two significant changes in Finale's behavior. First, when you create chord symbols, their descriptions in the Chord Definition dialog box will be accurate (the root of an A minor chord in a scale with no sharps or flats will be labeled 0, not 5). Second, if you're transcribing music using HyperScribe or the Transcription Tool, you'll discover that accidentals are transcribed with greater accuracy. In A minor, for example, the note between G and A will be notated as a G♯ (instead of an A♭, as it would be called in C major).

To ESTABLISH A MINOR KEY SYSTEM

- Click the Key Signature Tool 🔳 . A handle appears on each barline.
- Click the handle at the measure where the minor key is to begin. The Key Signature dialog box appears. -
- Click 19th Century Western Tonality. The Nonstandard Key Signature dialog box appears.
- Click Next. The Linear Key Format indicator should say 1. In Finale, Linear Key Format 1 is the minor key system.
- Use the scroll bars at the top of the window to set the minor key signature you want. If you want to select A minor, leave the default key signature (no sharps or flats).
- Click OK.
- Specify the transposition effect you want. The three choices are Transposed, in which any existing music will be transposed to the new key; Held Modal, in which each existing note remains on its original *line or space*, but no new accidentals appear; or Held Chromatic, which holds each note at its original *absolute pitch*, adjusting accidentals when necessary.
- Click the desired region for transposition. The options are This Measure Only; This Measure Through Measure __, which lets you specify the last measure of the key change; or This Measure Through End of Piece.

M

Mirroring A mirror in Finale is an *intelligent copy* of a musical "source" region, dynamically linked to the source material. If you edit or add an articulation mark to the original music, the mirror automatically changes too. Because most music contains some form of repetition, mirroring can be a useful time-saver.

You can also create *composite mirrors*, in which you choose individual notes from separate source measures to mirror into a single measure. If the woodwinds are playing a melody of running eighth notes, for example, you might create a composite mirror that picks up only the accented notes for the brass. As with any mirror, if one of the source notes should change, the notes in the composite mirror change simultaneously.

Within any one measure, you can't have mirrored music in one layer and "real" music in the other.

To create a mirror (intelligent copy)

You can only make mirrors in currently *empty measures*.

• Click the Mass Mover Tool 🔄 . The Mass Mover menu appears.

• Choose Mirror from the Mass Mover menu.

• Select the source region of measures. Select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, or an entire staff by clicking to the left of it. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling.

• Drag the first source measure so that it's superimposed on the first target measure. If the first target measure is off-screen, scroll to and CTRL-Shift-click it. In either case, the Mirror Attributes dialog box appears. Remember, the target measures must be empty.

• If you want the mirror to be transposed in relation to the source measure, click Diatonic or Chromatic, choose the transposition, and click OK. If you're doubling a violin line in the cellos, you'd probably want to transpose the mirror (the cello copy) down an octave or two. In this case, you'd click Diatonic. In the Transpose dialog box, you'd click Down and Octave (Eighth).

• Specify any elements of the source music you *don't* want to appear in the copy. To do so, click Don't Draw, then click the elements you don't want to appear (Lyrics, Chords, or Beam Extensions, for example).

• Click OK. You can use the Mass Mover Tool to copy *mirrored* measures just as you would copy normal measures. Remember, the command you've selected in the Mass Mover menu affects the result. If you've selected Copy and Replace, the copy of the mirrored measure becomes a normal measure. If you've selected Mirror, the copy of the mirrored measure is another mirror.

To identify mirrored measures in the score

• Click the Mirror Tool 🔄 . A mirror icon appears on any measure that's a mirror of a "normal" measure.

To convert mirrored measures into "normal" measures

• Click the Mass Mover Tool 🔄 .

• Select the region containing the mirrored measures you want to convert. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or choose Select All from the Edit menu to select the entire file. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling.

The Mass Edit menu appears.

- Choose Convert Mirrors from the Mass Edit menu. A dialog box appears, asking you to confirm your decision.
- Click Yes.

TO CREATE A COMPOSITE MIRROR

Using the Mirror Tool, you can create a measure that contains intelligent copies of *individual notes* from several normal measures. The resulting patchwork measure is called a *composite mirror*. (Composite mirroring is for combining notes from *disparate* measures into a single measure. If you want to create a mirror consisting of selected notes from a *single* measure, copy the entire measure [see "To create a mirror," above], and see "To rebeam or edit an existing mirror," below, for instructions on choosing selective elements of it.)

- Click the Mirror Tool 🖲.
- Click an empty measure (the "target measure"). The Tilting Mirror box appears, so called because it can be made to "reflect" the contents of any other measure in the score. You can maneuver this one-measure "window" around the score, copying individual notes from various measures. At the moment, the Tilting Mirror box is blank.
- Click the up, down, left, or right arrow buttons to maneuver your "window" on the score to the measure whose notes you want to mirror. Click the up arrow to move up a staff, the down arrow to move down a staff, the right arrow to move to the next measure, and the left arrow to move to the previous measure. As you proceed, you'll see the contents of each measure you view, adjusted for the target measure's clef. (If you move your "view" to *another* mirrored measure, it appears blank in this window.)
- When you're viewing a measure whose notes you want to mirror, drag the "cut bar" handles inward to enclose the desired notes. The "cut bars" are the dotted lines at each end of the window, whose handles you drag to move them. The cut bars give you the freedom to choose any note or notes within the currently viewed measure.
- Click Next. Finale asks if you want to save changes—in other words, to mirror the selected notes into the target measure. If you click Yes, Finale keeps track of the notes you just selected and restores the cut bars to the ends of the window, ready for you to choose another note or set of notes.
- Repeat the last three steps, as necessary. Use the directional arrows to locate the measure, the cut bars to identify the desired notes, and click Next to add the selected notes to the target measure. To remove one of the elements of your composite mirror, click the Prev (or Next) button until the notes appear in the window, then click Delete. If you want to insert a new selection between two existing ones, click the Prev or Next buttons until you're viewing the selection *after* the insertion point, then click Insert. Use the directional arrows and cut bars as usual.
- Click OK, and click Yes when asked to Save Changes. The Mirror Attributes box appears. Specify a transposition, and specify musical items to ignore (Don't Draw), as needed.
- Click OK. The composite measure will appear in the score with a mirror icon, to help you identify it. If any of your measure-fragment selections were blank, any selections after the blank selection are ignored.

TO REBEAM OR EDIT AN EXISTING MIRROR

- Click the Mirror Tool 🖲, and Shift-click the mirrored measure. The Mirror Attributes window appears.
- If you want the notes in the measure rebeamed, click Rebeam, and specify a rebeaming option. Rebeam to Time Signature beams the notes in the usual way, correcting any peculiar beaming that arose from the use of composite mirroring (see above). If you click Rebeam to Beam Chart, a window appears with a handle on each eighth (or smaller value) note in the measure.

In this beaming window, you *break the beam* to a note (from the previous note) by clicking its handle. Any notes whose handles you haven't selected will be beamed together when you return to the score. (If you want all notes beamed together, select the first handle in the measure.) Click OK when you're finished.

- If you want the mirror to display only selected notes (instead of all notes) from the source measure, click Selective Mirror ID. A picture of the complete composite mirror appears, with a handle on every note. Click the handles of the notes you want included in this sub-selection of your composite mirror, known as a *selective mirror*. Any handles you don't select will be omitted from the final display of the measure (or turned to rests). You can use a selective mirror to select the melody notes within a triadic passage, for example. Click OK when you're finished.

- Specify a transposition, if desired.
- Click OK.

Mordents
A mordent is a form of ornament, akin to a turn (or gruppetto), denoted by the symbol (∿, ⋪, or ∿∿) placed over a note. In Finale, the mordent marking is a Note Expression. If you've loaded a Note Expression library into your file (or if DEFAULT.MUS is in place), you don't have to create the marking.

TO CREATE THE MORDENT (∿, ⋪, OR ∿∿) MARKING ON A NOTE
These instructions create a graphic mordent marking only.

- Click the Note Expression Tool ⬚.
- Click on, above, or below the note. The Note Expression Selection box appears.
- If you see the ∿, ⋪, or ∿∿ marking in the selection box, double-click it. You return to the score, and the marking is attached to the note.
- If you don't see see the ∿, ⋪, or ∿∿ marking in the selection box, click Create. The Note Expression Definition box appears.
- Type a lower-case m. In the Petrucci music font, the lower-case m is the ∿ marking. Type Shift-M to produce the ⋪ marking, or type ALT0181 to produce the ∿∿ marking.
- Click OK or Select in each dialog box to return to the score. The marking appears at the spot you clicked.

TO MOVE OR DELETE THE MORDENT MARKING
- Click the Note Expression Tool ⬚.
- If the marking's handle isn't visible, click the note it's attached to.
- Drag the handle to move the marking. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the marking and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO DEFINE THE MORDENT MARKING FOR PLAYBACK
You can't define the Note Expression mordent for playback. However, you can create a mordent marking as a Staff Expression and define *it* for playback. See "Trills—To define a trill for playback" for full instructions. (You'll adapt the Executable Shape you create to a more appropriate shape, depending on how you want the mordent to sound). If you have trouble navigating the Shape Designer, see "Shape Designer". If you're not yet familiar with the concept of Executable Shapes, see "Expressions: Staff Expressions—To define an expression for Playback (Staff or Score Expressions)."

Motif See "Mirroring."

Multimeasure rests Multiple measure rests, also called *multimeasure* or *block rests*, are standard notation in instrumental parts. When a player has several measures of rest, instead of showing a lot of individual whole rests, a single wide measure appears in the part, usually filled by a thick bar (the multimeasure rest) with a number above it, indicating the number of measures this block rest represents.

Finale automatically breaks up multimeasure rests at key or meter changes, double barlines, repeat barlines or text repeats, any "real" whole rest (a whole rest you entered, not the default rests that appear in any empty measures), or any measure whose barline has been made a "Light Line." (To access the barline options for a measure, click the Measure Attributes Tool, then double-click the barline's top handle.)

Multimeasure rests never appear in the full score, only in the extracted parts. For information on loading, choosing, and using multimeasure rests, see "Extracting parts."

Multiple key signatures You can create a score in which each staff has a different key signature. The presence of multiple simultaneous key signatures isn't the same thing as establishing staves for transposing instruments (trumpet and clarinet, for example), in which various staves are notated in different keys but all sound in the same key. To find out how to handle transposing instruments—for which Finale correctly changes the key signature automatically—see "Transposing instruments."

TO CREATE MULTIPLE KEY SIGNATURES
- Choose Floats from the Special menu. A dialog box appears.
- Click Float Key Signatures. Click OK.
- Click the Staff Attributes Tool ⊟ . A handle appears on each staff.
- Click the handle of the first staff whose key you want to change. The Staff Attributes box for the selected staff appears.
- Click Float Key Signature. You have to specify Float Key Signature for each staff that will be in an independent key. If you have several staves to prepare this way, click the Next button to scroll from staff to staff.
- Click OK. You return to the score. If you now click the Key Signature Tool ▦ , a handle will appear on every staff that you've "enabled" to have an independent key signature. (A handle also appears on the *topmost* staff, for which you *haven't* specified Float Key Signatures, so that you can set the "main" key for the piece.) To change the key signature for one of the "Float Key Signatures" staves, click its handle. The scrolling Key Signature dialog box appears, so that you can set the key in the usual way.

Multiple-measure rests See "Multimeasure rests."

Multiple meters See "Multiple time signatures."

Multiple time signatures With the following technique, you can create a score in which each staff has a different time signature. The staves won't play back in different meters, but the music in all staves will be spaced (and beamed) correctly.

To create Multiple time signatures

- Choose Floats from the Special menu. A dialog box appears.
- Click Float Time Signatures. Click OK.
- Click the Staff Attributes Tool ⌸. A handle appears on each staff.
- Click the handle of the first staff whose meter you wish to change. The Staff Attributes box for the selected staff appears.
- Click Float Time Signature. You have to specify Float Time Signature for each staff that will be in an independent meter. If you have several staves to prepare this way, don't exit the Staff Attributes box. Click the Prev and Next buttons to scroll between staves.
- Click OK. You return to the score. If you now click the Time Signature Tool ▦, a handle will appear on every staff that you've activated for an independent time signature. (A handle also appears on the *topmost* staff, for which you *haven't* specified Float Time Signatures, so that you can set the "main" meter for the piece.) To change the time signature for one of the "Float Time Signatures" staves, click its handle. The Time Signature dialog box appears, so that you can set the key in the usual way.

Multiple voices

You can have up to four independent musical lines per staff. For a complete tutorial in handling multiple voices, see Tutorial 8 in *Learning Finale*.

Finale offers three methods for working with inner voices: *Layer 1/Layer 2, Voice 1/Voice 2, and superimposing staves.* You'll probably find it easiest and quickest to work with Layer 1/Layer 2 if you're entering music in step time (Simple Note or Speedy Note Entry tools). Both of the real-time transcription tools (HyperScribe and the Transcription Tool), however, automatically transcribe inner voices with Voice 1/Voice 2.

Voice 1/Voice 2 and Layer 1/Layer 2 are both capable of generating flexible stems-up/stems-down notation, and the two methods can be combined (giving you a total of four independent voices). If you have even more complex inner-voice relationships, you can use the superimposed-staves technique (see below).

To enter multiple voices using layers

Each staff in Finale has two transparent *layers* of music. Each layer can play back over a different MIDI channel and synthesizer patch, and each can have its own dynamics. You can view one layer at a time or both simultaneously. When you're placing expression marks in the score, you can tell which layer is receiving the mark by the indicator in the lower-left corner of the screen, which says Layer 1 or Layer 2. (You can flip the view from one layer to the other by clicking this indicator.)

- Choose Layer Attributes from the Edit menu. The Layer Attributes box appears, letting you specify the characteristics of each layer. In general, you'll want the stems of Layer 1 to flip up, but only when Layer 2 is present, and the stems of Layer 2 to flip down, but only when Layer 1 is present. Furthermore, you'll probably want *ties* to flip the "wrong way"— in other words, if notes in Layer 2 are present, you'll want ties in Layer 1 to flip *upward*, even though the Layer 1 stems are upward. (If you prefer, you can reverse this scheme. However, this example assumes that you're making Layer 1 the stems-up layer.)

  Therefore, you'll probably want to select options as follows. For Layer 1, click Freeze Stems: Up, Freeze Ties in the Same Direction, and Do Only When Layer 2 is Present. For Layer 2, click Freeze Stems: Down, Freeze Ties in the Same Direction, and Do Only When Layer 1 is Present.

  In addition, you may wish to specify that the placement of rests in one voice is such that they don't collide with notes in the other voice. You tell Finale how far out of the way you want these rests to appear by entering numbers into the Floating Rest Offset boxes. These boxes measure the distance, in lines and spaces, from the center line of the staff. Usually,

you'd enter a positive number for Layer 1 (such as 4), and a negative number for Layer 2 (such as —4).

If you choose not to use the Floating Rest Offsets option, don't worry—you can always drag rests vertically later.

- Specify stem directions, tie options, and rest offsets for each layer.
- Click OK. If you like, choose Show Only Current Layer from the Edit menu. When this option is selected, only the current layer (as indicated by the Layer indicator in the lower-left corner of the screen) is visible. The other layer is hidden. You can switch to the other layer by choosing Layer 1 or Layer 2 from the Edit menu, or—a shortcut—by clicking the Layer indicator in the lower-left corner of the screen.
- Click the Layer indicator in the lower-left corner of the screen so that it displays the layer you want to edit first.
- Click the Speedy Note Entry Tool ⌷, and click a measure in which you want to enter music. The editing frame appears. Enter the music for the first layer in the usual way (see "Step-time music input.")
- Press Shift-apostrophe ('). The editing frame flips to the other layer, and the first layer is dimmed. (If the first layer doesn't appear at all, it's because Show Only Current Layer is selected in the Edit menu.) You can now enter and edit music in this layer. You won't see the rests shift and stems flip as you specified in the Layer Attributes box until you exit this measure. (If pressing Shift-apostrophe doesn't flip layers, it may be because you're using a macro program, or TSR, to generate "curly-quotes" for your word processor programs. Such macro programs send a different character to the program you're using when you press the apostrophe key, so Finale won't switch layers.)
- To drag a rest, position the cursor on it and press the asterisk (*) key, then drag it up or down. If you want the rest to snap back to its default position, position the cursor on it and press the asterisk (*) key again.
- To hide a note or rest, position the cursor on it and press the letter O key. Press O again to restore the entry. Use this feature to hide a Layer 2 half rest, for example, to give the appearance of a second voice entering on the third beat. (If pressing the O key doesn't seem to work, make sure your Caps Lock key isn't down.)
- If you need to adjust colliding noteheads, drag them to the right or left. If you want the note you're dragging to move *only* vertically or *only* horizontally, press Shift as you drag.
- Press zero (0) to exit the editing frame. When you use Mass Mover to copy music, you'll copy whichever layer or layers are *showing*. To copy Layer 1 only, choose Show Only Current Layer from the Edit menu, and click the Layer indicator (lower-left corner of screen) so that Layer 1 appears. Copy in the usual way (see "Copying music").

TO ENTER MULTIPLE VOICES USING V1/V2

You can also have two independent voices within *each* layer, called Voice 1 and Voice 2 (or V1/V2, as they're called in the Speedy Note Entry editing frame). For a more detailed description of V1/V2, see Tutorial 8 in *Learning Finale*.

- Click the Speedy Note Entry Tool ⌷ and click a measure in which you want to enter music. Unlike layers, in which it doesn't matter which musical line you notate first, you must enter Voice 1 first when working with the V1/V2 mechanism. In general, it's best to enter the longer note values first.
- Enter the notes of the first voice (Voice 1). "First" doesn't necessarily mean *upper*. V1 and V2 may have their stems up or down at any point.
- Press the arrow keys to move the insertion point to the Voice 1 note at which the first Voice 2 note is to appear. A Voice 2 musical line may "materialize" at any point in the measure, as long as it's been "launched" from an existing Voice 1 note. Indeed, you can have several "launches" within a measure (although you generally can't *beam together* Voice 2 notes that have been launched from different Voice 1 notes).

- To enter Voice 2, press the apostrophe (') key. The indicator now reads V2. The insertion bar is offset slightly from the Voice 1 note to remind you that you're now editing a second voice.
- Enter the notes of the second voice (Voice 2). You may notice that the note stems don't always flip in the proper directions.
- To correct note stem directions, switch to the correct voice by pressing the apostrophe key. Move the cursor to the target note by pressing the arrow keys. Press the L key to freeze a stem up, press Shift-L to freeze a stem down. When a stem is "frozen" up or down, it's no longer free to change directions if it gets transposed. To restore a stem to its "floating" status, position the insertion bar on the note and press CTRL-L. (If pressing the L key doesn't seem to work, make sure your Caps Lock key isn't down.)

  You can move rests up or down, too. If the rest is in Voice 2, you can move it by dragging it. If the rest is in Voice 1, position the cursor on it and press the asterisk (*) key to make it "draggable." If you later want the rest to snap back to its default position, position the cursor on it and press the asterisk (*) key again.

TO ENTER MULTIPLE VOICES USING SUPERIMPOSED STAVES

- Enter each voice on a separate staff. In order to avoid superimposed rests, you may want to "turn off" the default whole rests that Finale places in any blank measure. Click the Staff Attributes Tool, then click the handle of the target staff. In the dialog box that appears, click Blank Empty Measures, then click OK.
- Flip stems up or down, as desired. To flip stems up or down, click the Mass Mover Tool and select the region whose stems you want to flip. Choose Modify Entries from the Mass Edit menu. In the dialog box that appears, click Freeze Stems, and choose Up or Down. Click OK. ("Freeze Stems" means that the stems are no longer free to flip up or down depending on their positions on the staff. They're permanently flipped (frozen) in one direction until you restore them to their original "floating" status.)
- Click the New Staff Tool ▦ . A handle appears on each staff.
- Carefully drag the secondary staff so that it's superimposed on the primary staff and their top lines align. The top line of the staff being dragged appears as a dotted gray line while you're dragging. If you have difficulty aligning the staves, CTRL-click the handle of the primary staff, and note the Distance From Top value. Click the Prev and Next buttons until the values for the secondary staff appear. Enter the Distance From Top value from the primary staff and click OK.
- For easy editing, assign each staff to its own Staff Template (or create a Staff Template in which the superimposed staves are separated). For information on Staff Templates, see "Hiding staves." You could create one Staff Template in which the secondary staff is hidden. In another, you could hide only the primary staff. By pressing the keyboard equivalents of the Staff Templates (F7–F10) you'll be able to switch instantly between views of one or the other, or both staves superimposed.

  You could create a Staff Template that contains *all* staves—but once you've created the Template, you could drag the superimposed staves apart. By flipping between the "main" view (in which the staves are superimposed) and this Staff Template, you can also easily edit your score without having to separate and realign staves.
- Click the Speedy Note Entry Tool ▤ , and click any measure in which noteheads collide, and drag them to the right or left. If you want the note you're dragging to move *only* horizontally, press Shift as you drag.

Mutes Mute indications for brass or stringed instruments (such as "Straight mute," *con sord.,* "Open," and so on) are usually placed as Staff Expressions in the appropriate staves in your score. The following instructions tell you how to create a Staff Expression mute indication. If you want to create an open or closed symbol (o or +), see "Open symbols" or "Closed symbols."

If a particular marking appears at the same point in the music in several staves, you may want to create the mute indication as a Score Expression instead (see "Expressions: Score Expressions").

TO PLACE A MUTE MARKING INTO THE SCORE

- Click the Staff Expression Tool 🔁.
- Click on, above, or below the note to which you want to attach the marking. The Staff Expression Selection box appears.
- If you've already created the mute marking, double-click it, and click OK. The Text Expression appears in the score, where you can adjust its position.
- If the mute marking doesn't appear in the list, click Create. The Text Expression Designer appears.
- Type the text for the mute marking ("Straight mute" or *con sord.*, for example). Click Set Font if you want to specify the font for the Text Expression you're creating.
- Click OK or Select in each dialog box to return to the score.

TO MOVE OR DELETE THE STAFF EXPRESSION MUTE MARKING

- Click the Staff Expression Tool 🔁.
- Click the note to which the marking was attached. Its handle appears.
- Drag the handle to move the marking. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it.

Nested repeats See "Repeats."

Nested tuplets See "Tuplets."

Neutral key A piece in *neutral key* displays no key signature. Instead, individual notes display accidentals as needed.

As far as Finale is concerned, you can create neutral key simply by setting your piece in the key of C. Then any note not in the C diatonic scale will have its own accidental. A problem arises when you have a transposing instrument, such as a trumpet—Finale will automatically place the trumpet part in D (the usual trumpet transposition for a piece in C), instead of in neutral key.

The solution, then, is not to use Finale's automatic part transposing feature for neutral key pieces.

TO CREATE A NEUTRAL-KEY TRANSPOSING INSTRUMENT PART

The idea is to enter the music at "concert pitch" (as though the instrument was not a transposing instrument at all), then correct the key and transposition just before printing.

- Enter the part in concert pitch. In this case, *don't* use the Staff Attributes Tool to create an automatic staff transposition.
- Click the Mass Mover Tool ⊞ , then click to the left of the staff. The entire staff is highlighted.
- While pressing the 6 key, double-click the staff. The Transpose Chromatic box appears.
- Specify the interval needed to transpose the notes to their "written" pitches. In other words, if you're working on a trumpet part, you'd specify Up a Major Second as the transposition interval.
- Click OK.

Nonlinear key signatures See "Nonstandard key signatures."

Nonlinear spacing See "Allotments."

Nonstandard key signatures Most music is written with one of the "standard" key signatures. This traditional system is based on a scale of twelve half steps and a harmonic scheme where a new accidental is added to the key signature with every advance around the circle of fifths.

In certain advanced and twentieth-century music schemes, these traditional key signature practices don't apply. A piece may be based on the quarter-tone scale, for example, in which there are *four* chromatic steps from C to D. In Finale, you can create your own key signatures in any format, based on scales with any number of steps from one note to the next. Using the five dialog boxes accessed by the Nonstandard Key Signature dialog box, you can create up to 128 *linear* or *nonlinear* key signatures that are available at any time within the file.

TO CREATE NONLINEAR (NONSTANDARD) KEY SIGNATURES

Because this aspect of Finale is among its most technical, you'll find only a summary of the steps for creating a nonstandard key signature in this entry. In some of the steps, you'll be directed to a corresponding (more detailed) discussion in *Finale Reference*.

- Click the Key Signature Tool ▣. A handle appears on each barline.

- Click the handle of the barline where the key will change. A scrolling list of key signatures appears.

- Click 19th Century Western Tonality. The Nonstandard Key Signature dialog box appears. In the center of this dialog box you'll find a pair of buttons to indicate which kind of nonstandard key signature you want to create: *Linear* or *Nonlinear*.

- Click Linear Key Format or Nonlinear Key Signature. (See "Nonstandard Key Signature dialog box" in *Finale Reference*.)

  A *linear key format* is one whose scale is composed of a repeating sequence of diatonic and chromatic steps. The standard diatonic major scale is a linear key format —in Finale, it's called Linear Key Format 0. Linear Key Format 1, which you can choose by clicking the Next button, is the standard *minor* scale format. A key signature with no sharps or flats that's been set to this key format considers A, not C, to be the first note of the scale. Because these two formats have been predefined, you'll find that only the ClefOrd and Attribute icons [two of the five icons whose associated dialog boxes define the key format] are operational. Once you've selected Key Format 2 or higher, all five icons are active.

  The keys of a linear key format need not proceed around the circle of *fifths*. You could create a system that proceeds around a circle of *sixths*, for example. As long as the scale in each of the key format's related "keys" is formed by the same sequence of whole and half steps, and as long as the upper and lower *halves* of the scale are formed by the same sequences of whole and half steps (such as the tetrachords in a standard diatonic scale), the system of keys is considered a linear key format.

  A *nonlinear key signature* is one for which there's no "circle of fifths". In fact, there's no circle of anything. Whereas a linear key format is a *system* of related keys and key signatures, a nonlinear key signature is a key signature unto itself, unrelated in any way to any other key signature. A nonlinear key signature can contain one sharp and one flat, for example, on any notes of the scale, and there need not be any logic to their positions.

- Specify the number of diatonic and chromatic steps you want in the scale by clicking the KeyMap icon. The Key Step Map dialog box appears, in which you specify how many steps you want in an octave, and which steps are "diatonic" and which are "chromatic." See "Key Step Map dialog box" in *Finale Reference* for details.

- Specify the order in which accidentals appear in each sequential key signature by clicking the AOrdAmt icon. Click this icon to display the Accidental Order and Amount dialog box, in which you specify the new accidental you want to appear with each progression (if any) to a new key, and on what line or space it should appear. See "Accidental Order and Amount dialog box" in *Finale Reference* for more information.

- Specify the *tone center* (root) of each key by clicking the ToneCnt icon. The Tone Center's dialog box appears, in which you specify the relationship of each new "key" (tone center) to the appearance of a new accidental. See "Tone Center/s dialog box" in *Finale Reference* for a more complete discussion.

- Specify the *octave* in which each of the accidentals appears (on the staff) by clicking the ClefOrd icon. The Accidental Octave Placement dialog box appears, in which you can specify the octave in which you want each accidental to appear according to each clef. See "Accidental Octave Placement dialog box" in *Finale Reference* for details.

- Choose the font and character to be used in place of the normal sharps and flats (if you want) by clicking the Attribute icon. The Special Key Signature Attributes dialog box appears, in which you can specify a number of miscellaneous attributes for the key format you're creating. For example, you can specify nonstandard symbols to be used instead of the normal sharps and flats in the key signature. See "Special Key Signatures dialog box" in *Finale Reference*.

- Click OK. A box appears, asking for information about the key change.

- Specify the transposition effect. The three choices are Transposed, in which any existing music will be transposed to the new key. Held Modal, in which each existing note remains on its original *line or space*, but no new accidentals appear. or Held Chromatic, which holds each note at its original *absolute pitch*, adding accidentals when necessary.
- Click the desired region for transposition. The options are This Measure Only; This Measure Through Measure __, which lets you specify the last measure of the key change; or This Measure Through End of Piece.

Note durations See "Note values (durations)."

Note Expressions See "Expressions: Note Expressions."

Noteheads For information on changing the *shapes* of noteheads (to X noteheads, diamond noteheads, slashes, and so on), see "Note shapes." {·/. ⁊ᴇ⌐ ᴊ᷉ᴇ⌐᷉⌐ᴛ⌐}

TO MOVE INDIVIDUAL NOTEHEADS

Occasionally, you may need to drag the individual noteheads horizontally—for example, to "restack" the notes of a cluster chord.

- Click the Special Tools Tool ⊞ , and click the target measure. The Special Tools window appears.
- Click the Notehead Tool ⊟ . A handle appears on each notehead.
- Drag any handle left or right to move the notehead. To restore a notehead to its original position, click its handle, then press Delete.
- Double-click the Control-menu box (in the upper-left corner of the window).

Note positioning The positions of notes in Finale are determined by a number of factors. Their default horizontal positions are *linear*, according to the time signature—a whole note gets exactly as much room as four quarter notes.

When you apply Mass Mover Metatool 3, notes are positioned according to the Allotment Library you've loaded—a table of width measurements for notes of various rhythmic values. For a full discussion of Metatool 3 and Allotments, see "Allotments."

You can also position notes manually. To move a note and have all other notes that fall on the same beat (in other staves) remain aligned with it—in other words, to move the position of the *beat* itself—see "Beat positions."

TO MOVE A NOTE HORIZONTALLY

- Click the Speedy Note Entry Tool ⊠ , and click the target measure. The editing frame appears.
- Drag the note left or right. If you want the note you're dragging to move *only* horizontally, press Shift as you drag (so that you won't accidentally drag it up or down to a new pitch).

TO MOVE A NOTE VERTICALLY (CHANGE THE PITCH)

- Click the Speedy Note Entry Tool ⊠ , and click the target measure. The editing frame appears.
- Drag the note up or down. You need to click squarely on the notehead before dragging. If you want the note you're dragging to move *only* vertically, press Shift as you drag (so that you won't accidentally drag it left or right).

Note shapes A notehead can be any shape in Finale, including X, diamond, square, circle, slash—you can even create invisible noteheads. You can globally define noteheads to be a particular shape on the basis of rhythmic value, position on the staff, or both. You can also change individual noteheads to any shape.

TO CHANGE THE SHAPE OF A NOTEHEAD

- Click the Special Tools Tool 🔲 , and click the target measure. The Special Tools window appears.
- Click the Notehead Tool 🔲 . A handle appears on each notehead.
- Shift-click the handle of the notehead you want to change. A palette appears, displaying every character in the music font.
- Double-click the desired replacement notehead shape. To restore the notehead to its original shape, click its handle and press Delete.
- Double-click the Control-menu box (in the upper-left corner of the window). If you want to change a note in another measure that is visible on the screen, you can move to it by clicking the arrow buttons in the Special Tools window.

TO COPY INDIVIDUAL NOTEHEAD CHANGES TO OTHER MEASURES

If you require a more global note shape configuration that can't be addressed by changing *all* notes of a specified pitch and duration to a specified shape (see "To change all notehead shapes of a specified duration and pitch," below), you can create the changes manually and then paste *only* the note shape information onto other measures.

- Change the notehead shapes manually in the first measure or measures. See "To change the shape of a notehead," above.
- Choose Move Only from the Mass Mover menu.
- Choose Entry Items from the Mass Mover menu. A dialog box appears, listing elements of the music that you can copy individually.
- Click Note Head or Percentage Alterations. Click OK.
- Click the Mass Mover Tool 🔲 , and select the modified measure or measures. Select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, or an entire staff by clicking to the left of it.
- Drag the first highlighted measure so that it's superimposed on the first target measure. If the target measure is off-screen, scroll to the measure and CTRL-Shift-click it. Unless the target measures are directly above or below the source measures, the How Many Times box appears.
- Enter the number of times you want the notehead shape information copied. Click OK. To restore the noteheads to their original shapes, select the region using the Mass Mover Tool. Choose Erase from the Mass Edit menu. Proceeding through the dialog boxes, click as follows: Only the Selected Items, Entries, Only the Selected Items, Note Head or Percentage Alterations. Click OK twice.

TO CHANGE ALL NOTEHEAD SHAPES OF A SPECIFIED DURATION AND PITCH

This technique is especially useful for Shape Note Music, where the shape of a note indicates its pitch, and for drum parts, where you might want all notes on a particular pitch to have X and diamond noteheads (cymbals, hi-hat, etc.), but all other notes to have normal noteheads (drums).

You can assign a different notehead shape to each step of the scale.

- Choose Floats from the Special menu. A dialog box appears.
- Click Float Note Shapes. Click OK.
- Click the Staff Attributes Tool ⊟. A handle appears on each staff.
- Click a staff's handle. The Staff Attributes window appears for the staff you clicked. Changeable note shapes are activated one staff at a time.
- Click Float Note Shapes. A scrolling key signature box appears. You can ignore it, unless you're working with nonlinear key signatures that have more than seven diatonic steps in an octave.
- Click OK. Another box appears.
- Click the the first notehead shape that you want to change to an alternate shape. The four basic note shapes in Finale are the quarter notehead • (also used by eighth, sixteenth, and smaller note values), the half notehead ↺, the whole notehead ○, and the double whole notehead ⋈. For each note of the scale, you can specify an alternate notehead shape (X, diamond, and so on) for *each* of these four basic shapes. For example, you could specify that every half note occurring on the second scale degree will appear as an X notehead.
- Specify the scale degree for which you want to modify the selected notehead. To choose the scale degree, click the Prev and Next buttons to cycle through the notes of the scale, until the Diatonic Step indicator displays the desired step. This Diatonic Step counter treats the first note of the scale as *zero*, not 1. Therefore, a G in the key of C is Diatonic Step 4, not 5.
- Click *Symbol*. A palette appears, displaying every character in the music font.
- Double-click the symbol you want to serve as the alternate notehead shape. You can continue this way, using Prev and Next to move through the scale degrees, and clicking the desired notehead shape (quarter, half, whole, or double whole).
- Click OK twice. You return to the score, where the noteheads of the type and scale degree you specified have automatically changed to the alternate note shapes you selected.
  If you anticipate creating other scores with the same configuration, save this piece on your disk as a *template* (a blank file without any notes in it), so that you won't have to repeat the process the next time you need to create alternate note shapes.

Note size

You can change the size of the music in your files in a number of ways, both globally and locally. For instructions regarding cue notes, see "Cue notes." For information on reducing or enlarging the entire score at once (for printing purposes), see "Reducing/ Enlarging."

TO REDUCE OR ENLARGE THE NOTES (BUT RETAIN STAFF SIZE)

Using this technique, you can create large-note music for beginning readers, or reduce all the notes slightly (with respect to the staff) for a sparser, finer look.

- Choose Font Selection from the Special menu. A dialog box appears.
- Click Music. The Text Font, Size, and Style dialog box appears.
- Enter a new value in the Point Size box. The standard size for Finale's music font (Petrucci) is 24 point.
- Click OK. The notes may have slightly jagged edges if you print on a non-PostScript printer. On a PostScript printer the notes will be crisp and smooth.
  If you discover that the stems of stems-up notes no longer attach correctly to the newly-sized noteheads, you can adjust their horizontal positions using the Stem Connections dialog box. See "Stems—To change the position of the stem relative to its notehead" for instructions.

To reduce or enlarge selected notes (or noteheads)

- Enter the music at normal size.
- Click the Reduce/Enlarge Tool 🔲.
- To change the size of a *notehead*, click it. To change the size of the entire *entry group*—the note or chord, stem, flag, lyric, articulations, and any notes beamed to it—click the *stem* (of the first note in the group). The Reduce/Enlarge Percentage box appears.
- Enter the desired reduction or enlargement value. The number you enter here is a percentage of the full-size notes, so 200 (%) would result in a double-size note.
- Click OK. The note (or entry group) is now resized. To restore the notes to normal size, repeat the process, but click Delete in the Percentage Reduction/Enlargement box.

To restore a region of modified notes to their original size

- Click the Mass Mover Tool 🔲. The Mass Mover menu appears.
- Select the measures containing the resized notes. You can select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, an entire staff by clicking to the left of it, or the entire piece by choosing Select All from the Edit menu.
- Choose Erase from the Mass Edit menu. Proceeding through the dialog boxes, click as follows: Only the Selected Items, Entries, Only the Selected Items. A dialog box appears, listing various elements you can erase.
- Click Note Head or Percentage Alterations, then click OK twice.

Note values (durations)
In step-time music entry (Simple Note and Speedy Note Entry tools), the number keys on your computer keyboard determine the rhythmic values, as shown in this table.

This table also appears on your Quick Reference Card.

To change a note's rhythmic value (Speedy Note Entry)

- Click the Speedy Note Entry Tool 🔲, and click the target measure. The editing frame appears.
- Press the right arrow key until the insertion bar is on the desired note. Press a number key corresponding to the desired new duration. The note retains its pitch, but changes to the rhythmic value you specified. Sometimes, when you change the note to a longer value, Finale immediately responds by displaying the "There are too many beats in this measure" box and advancing you to the next measure. These responses can be disabled by choosing Clip to Measure (in the SpeedOptions menu), so that there's no check mark beside it. With Clip to Measure off, Finale will only tell you that you've exceeded the number of beats allowed by the time signature when you exit the measure (by pressing the zero key, the right or left bracket [previous measure/next measure] keys, or by clicking the score outside the current measure).

To change a note's rhythmic value (Simple Note Entry)

- Click the Simple Note Entry Tool 🔲. The palette changes to the Simple Note palette.
- Click the icon displaying the *new* note value.
- Click on, above, or below the note whose value you want to change. The note changes to the new rhythmic value. A quicker way is simply to press the number key corresponding to the new value as you click. In other words, if you press 4 while clicking a note, it changes to an eighth note, even though a quarter note is selected in the palette.

Notes For instructions on changing the size or shape of musical notes, see "Note size" and "Note shapes." To enter notes into the score, see one of the "Step-time music input" entries or "Real-time transcription (HyperScribe)." For instructions on changing the rhythmic values of notes, see "Note values," and to find out how to move notes from one place to another, see "Copying music," "Cross-staff notes," and "Transposing: by interval" or "Transposing: changing key."

For instructions on annotative notes (in the sense of written instructions to the performer, for example), see "Annotative text."

Open symbols The open symbol (o) is a Note Expression, used to indicate an open string (plectrum instruments), an open hi-hat (percussion parts), an open brass plunger mute, and so on. The same symbol is often used to indicate a natural string harmonic (see "Harmonics"). If you've loaded a Note Expression library into your file, you don't have to create the symbol.

TO PLACE AN OPEN SYMBOL ON A NOTE
- Click the Note Expression Tool ⬚ .
- Click on, above, or below the note. The Note Expression Selection box appears.
- If you see the open symbol in the selection box, double-click it. You return to the score, and the symbol is attached to the note.
- If you don't see the open symbol in the selection box, click Create. The Note Expression Definition box appears.
- Type the letter O. In the Petrucci music font, lower-case O is the open symbol.
- Click OK or Select in each dialog box to return to the score.

TO MOVE OR DELETE AN OPEN SYMBOL
- Click the Note Expression Tool ⬚ .
- If the symbol's handle isn't visible, click the note to which it was attached.
- Drag the handle to move the symbol. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the symbol and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO COPY OPEN SYMBOLS (AND OTHER ARTICULATIONS)
See "Expressions: Note Expressions—To copy Note Expressions."

Opera See "Annotative text," "Lyrics," "Optimizing staves," "Vocal music—To beam according to lyric syllables."

Optimizing staves In published full scores, it's customary to *omit* from a system any staves consisting entirely of rests, which results in a more compact and readable score. In Finale, this process of suppressing the printing of empty staves within each system is called *optimizing staves*.

Optimizing staves in Finale has another important benefit: it permits staves to be independently movable in Page View. Under normal circumstances, you can only move, respace, or rearrange staves in Scroll View using the New Staff Tool (which normally does nothing at all in Page View). If you have optimized a system, you'll find that the New Staff Tool works in Page View also, letting you vary the positioning and spacing of staves as they'll appear on the printed page. You can even regroup and rebracket them.

TO OPTIMIZE ALL (OR SPECIFIED) STAVES
- Click the Page Layout Tool ⬚ . The Page Layout menu appears and Finale switches to Page View, if it's not already there.
- Choose Optimize Staves from the Page Layout menu. A box appears, letting you specify the range of systems to be optimized. If you only want to optimize some of the systems, enter their numbers in the From and To boxes. If you don't change the default numbers in the boxes (From 1, To 0), Finale will optimize *all* staves.

- Click OK. When Finale's done, look at the staves in Page View. You'll see that every staff remaining in each system has music on it, because the empty staves have been hidden. Finale has *locked in* this staff configuration. If you return to Scroll View, for example, and add some music to a staff in a system that no longer appears in Page View (because it's been optimized), the staff won't reappear. If you want to edit, reformat, enlarge, or reduce your music, *remove optimization* before you do it, and *reapply optimization* when you're finished. For this reason, it's best to make optimization the last thing you do before printing, after the piece has been formatted, proofread, and given its final layout.

To REMOVE STAFF OPTIMIZATION FROM ALL (OR SPECIFIED) STAVES

- Click the Page Layout Tool 🔲. The Page Layout menu appears and Finale switches to Page View, if it's not already there.
- Choose Optimize Staves from the Page Layout menu. A box appears, letting you specify the range of systems to be affected. (If you don't know a certain system's *number*, click Cancel in this dialog box, and click the music. The Page Layout window appears. Click Staff Systems to see the numbered systems.) Choose Optimize Staves from the Page Layout menu again if you only want to remove optimization from *some* of the systems. Enter their numbers in the From and To boxes. If you leave the default numbers in the boxes (From 1, To 0), Finale will remove optimization from *all* staves.
- Click Remove Staff Optimization. Click OK.

To OPTIMIZE A SINGLE SYSTEM, STAFF BY STAFF

If you only want to remove *some* blank staves from a system, you can use this method, in which Finale will ask you to confirm the removal of each staff.

- Click the Page Layout Tool 🔲. The Page Layout menu appears and Finale switches to Page View, if it's not already there.
- Click the music. The Page Layout window appears.
- Click Staff Systems. A representation of each system appears, outlined by a dotted line.
- Click the upper-left handle of the system you want to optimize. Click Optimized. Finale announces that it's about to begin optimizing.
- Click Yes. Finale now wants to know whether you want it to fully optimize the system automatically, or if you want to be asked whether or not it should remove each staff within the selected system.
- Click Yes or No. If you click Yes, a dialog box will appear for each *empty* staff in the system, asking you whether it should be removed. If you click No (you *don't* want to be asked individually about each empty staff), Finale optimizes the entire system. Clicking No is the same as using the Optimize Staves menu command for the specified system (see "To optimize all [or specified] staves," above).
- When you're finished, click OK. You return to the score. To remove optimization from a single system, click the music to enter the Page Layout window, and click staff systems. You'll notice that the Optimized box is selected for any system you optimized. Click Optimized again to restore the hidden staves.

Ossia

An ossia passage is an *alternative* phrase, often placed in a reduced-size measure above the primary measure in the score. An ossia measure often provides an explication of a trill, proposes a cadenza, or suggests an easier alternative to the "real" measure.

In Finale, such an annotative measure is called *Arbitrary Music*, and it's created with the Arbitrary Music Tool. Because such a measure isn't part of any staff or system, and can be dragged freely around the page, it's also useful for notating cutout scores, or for adding musical examples. (Arbitrary Music doesn't play back, it's purely graphic.)

There are two kinds of Arbitrary Music. *Measure-assigned* Arbitrary Music (which you create in Scroll View) remains attached to its measure in the score, even if that measure's position in the score changes. *Page-assigned* Arbitrary Music (which you create in Page View) remains fixed to a given spot on the page, regardless of any repositioning of the music around it.

TO CREATE A FLOATING MEASURE (ARBITRARY MUSIC)

A floating measure must be based on a "real" measure. For most purposes you'll need to create a "scratch staff" on which to notate the actual contents of the Arbitrary Music. Before you print, you can delete the scratch staff.

For easy editing, you might assign the scratch staff to a Staff Template (see "Hiding staves" for full instructions). Once it's been assigned to a Staff Template, you can *delete* it from the full-score view, while still keeping it available in the Staff Template in case you need to edit it.

- Choose Scroll View from the View menu, if Finale is not already there.
- Click the New Staff Tool ▣ , and double-click the place where you want the scratch staff to appear. A new staff appears where you double-click.
- In the scratch staff, enter the music you want to appear in the floating measure.
- Click the Arbitrary Music Tool ▣ . Stay in Scroll View if you want the floating measure attached to a "real" measure. Switch to Page View if you want the measure fixed to a given spot on the page.
- Double-click the measure (Scroll View) or spot on the page (Page View) to which you want to attach the floating measure. The Arbitrary Music Designer box appears.
- Enter the number of the Source Staff and Source Measure. The Source Staff is the scratch staff, and the Source Measure is the measure in which you entered the music. (If you . don't know a staff's number, click its handle with the Staff Attributes Tool. The title of the window that appears tells you the staff number.) If you want to specify a clef other than the default treble clef, click "Clef". To set a key or time signature, click Key or Time. You can change the ending barline, too, by clicking one of the barline types.
- Specify the reduction value by entering a number in the Display Percentage box. Generally, reduction values of 50% to 85% (of full size) look good. If there are elements of the scratch staff you don't want included in the floating measure, click the appropriate boxes in the Don't Draw section. You can also specify various positioning aspects of the floating measure, such as the Top or Left Margin. For full descriptions of these elements, see "Arbitrary Music Designer dialog box" in *Finale Reference*.
- Click OK. The Arbitrary Music (Page or Measure) Assignment box appears. If you wish, specify horizontal and vertical coordinates for the measure (in EVPUs, of which there are 288 per inch). If Finale is not in Page View you can also specify the barline-to-barline width of the floating measure (again, in EVPUs).
- Click OK. You return to the score, and the Arbitrary Music is in place. If you're in Page View, you can drag the Arbitrary Music handle immediately to position the measure. In Scroll View, you have to click the "real" measure to which you attached it. A handle appears on the floating measure, allowing you to drag it into position.

TO MOVE, EDIT, OR DELETE A FLOATING MEASURE

To edit the *musical contents* of the floating measure, simply edit the measure on the "scratch staff" from which it was created. (If you assigned the scratch staff to a Staff Template and then deleted it from the full score view, as suggested above, switch to the Staff Template.)

- Enter the view (Scroll or Page) in which the Arbitrary Music was created. If you can't remember, here's a test. Is the Arbitrary Music visible in Scroll View? If not, it's page-assigned. In Page View, does the measure's handle appear as soon as you click the Arbitrary Music Tool? If not, it's measure-assigned.
- Click the Arbitrary Music Tool ▣ . If the floating measure was page-assigned, its handle appears. If it was measure-assigned, click the measure to which it was originally attached. A handle appears on the floating measure.
- Double-click the handle to change the Arbitrary Music Designer settings (clef, percentage reduction, and so on). Shift–double-click the handle to change the Assignment variables (X and Y Offsets and measure width).
- Drag the handle to move the floating measure. Click the handle and then press Delete to remove it.

Ottava (8va) See "8va/8vb."

Ottava Bassa (8vb) See "8va/8vb."

Page layout Many instructions for setting the page layout for your files appear under their own entries. See "Distances," "Margins (page)," "Page size," and "Measures—To widen, narrow, or specify the widths of many measures." For instructions on arranging measures within the score (setting the number of measures per line, moving a measure to another system, etc.), see "Measure layout." For details on printing large scores that require taping several pages together into composite pages, see "Tiling pages."

The initial layout of any file's pages is determined by the settings in the Format Variables dialog box (Special menu). In this box, you can specify dozens of page layout measurements (see "Distances"). The numbers you enter here are in EVPUs, of which there are 288 per inch. Changes you make to the page layout in the Format Variables dialog box, don't immediately affect existing pages—only pages *yet to be created.* If you want the changes applied to existing pages as well, choose Redefine All Pages from the Page Layout menu (which appears when the Page Layout Tool is selected).

An easier way to make formatting changes is to use the Page Layout window. See "To change the page layout (Page Layout window)," below.

A common use of Finale's page layout tools is to specify *how much music* should fit on a page—how many bars per line, how many systems on a page, and so on. It's important to realize that there are *four* elements affecting the amount of music on a page. First, look at the *distance between staves* in each system. If you decrease the total height of the system (by clicking the New Staff Tool ▣ and dragging the staves closer to each other), more systems fit on the page.

Second, you can adjust the *distance between systems.* If you're trying to fit another system onto a page, the simplest solution is to slightly decrease the space between *all systems,* so that the cumulative effect is to create just enough room for another system to appear on each page (see the two subentries for "To change the distance between systems," below). The third factor affecting the amount of music that fits on the page is the amount of *reduction* you've applied to the music on a page—you may find that a reduction of even a percentage point or two is just enough to fit another measure per line, or another system per page (see "Reducing/Enlarging"). Finally, don't forget that you control the "tightness" of the *spacing of the music itself,* with Mass Mover Metatool 3, in conjunction with an Allotment (spacing) Library (see "Allotments"). The tighter the music is, the more measures on a line, hence more music on the page.

TO CHANGE THE DISTANCE BETWEEN SYSTEMS (QUICK METHOD)
The distance between *systems* (in Page View and in printouts) is determined by the distance between the top of the music in *Scroll View* and the top of the window.

• Choose Scroll View from the View menu if Finale's not already there.

• Click the New Staff Tool ▣.

• Choose Select All from the Edit menu. All staff handles are highlighted.

• To increase the distance between systems, drag any handle downward. To decrease the distance between systems, drag any handle upward. Keep in mind that the *number* of systems that fit on a page is also determined by this distance you're now setting (as well as by the percentage reduction).

P PAGE LAYOUT

SCROLL VIEW | PRINTED PAGE
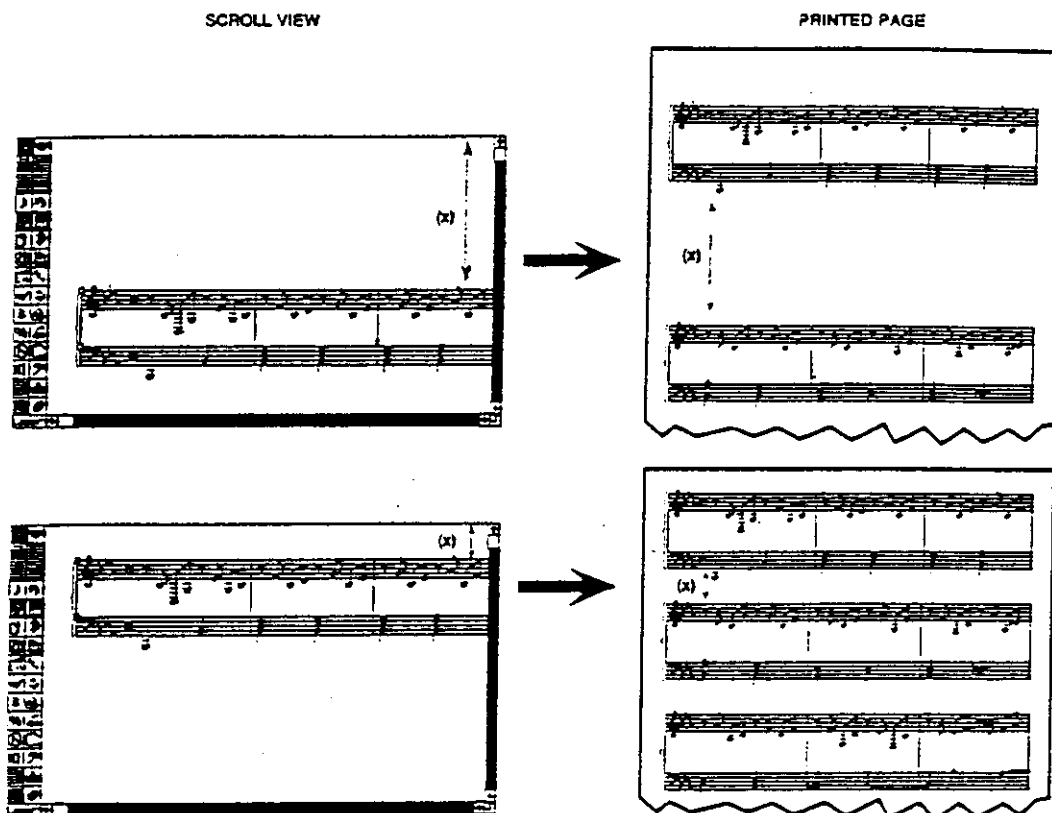
The distance between the top staff and the top of the window in Scroll View (x) sets the distance between systems in Page View (and on the printouts). The smaller this distance, the more lines of music will fit on the page.

To change the distance between systems (Page Layout method)

The advantage of the "quick method" (above) is that you can both increase and decrease the distance between systems. Here's an alternate method, useful primarily for increasing this distance.

• Click the Page Layout Tool 🔲 . Finale switches to Page View, if it's not already there.
• Click any page. The Page Layout window appears.
• Click Staff Systems. A dotted-line representation of each system appears.
• Choose Global Adjustment from the Page Layout menu, if it doesn't already display a check mark. In other words, you want the change you're about to make (to a single system) to affect every system in the piece.
• Drag the lower-right handle of any system upward or downward. You've just changed the amount of space below every system in the piece. In so doing, you may also have increased or decreased the number of systems that fit on a page.

Finale initially won't let you drag a system so that it *overlaps* the system above it. If you really want to create this cluttered effect, turn off Avoid Margin Collisions by choosing it from the Page Layout menu, so that a check mark no longer appears.

To change the page margins

See "Margins (page)."

If you find that brackets and staff names are being "chopped off" in your printouts, you may not need to change the file's *page* margins at all. Instead, adjust the *printing* margins by choosing Printer Setup from the File menu. Depending on the printer you are using, you may have to click Options or make other settings through this dialog box. Consult the Microsoft Windows User's Guide for more information.

To set the page size
See "Page size."

To change the page layout (Page Layout window)

- Click the Page Layout Tool 🔲. Finale switches to Page View, if it's not already there.

- Click the page you want to change. If you want to change the page layout of all pages at once, it doesn't matter which page you click. In any case, you enter the Page Layout window.

- If you want your changes to affect *all pages*, choose Global Adjustment from the Page Layout menu. If you don't, you'll be editing only the displayed page. (Even with Global Adjustment selected, the changes you make in this window don't affect the numbers in the Format Variables box [the "master" page layout definition box]. A check mark is displayed in the Page Layout menu when Global Adjustment is selected.)

- If you want to change the page size, click Page Size. Drag the handle in the upper-right corner of the "mockup." As you drag the handle, you change the page size, and the values in the *number boxes* (in the upper-right corner of the window) change. You can also enter EVPU values (288 per inch) directly into these boxes. To see their effect on the "mockup," click anywhere in the "mockup" area of the window. The number boxes control the page size, as shown in the figure below.

  If you're not happy with your changes, click Default to restore the page to its original size and shape. (The Default button simply restores the page to the dimensions specified in the Format Variables box in the Special menu.)

- If you want to change the page margins, click Page Margins, and drag the handles. A dotted line appears inside the page outline, representing the page margins. Again, as you drag a handle, the values in the *number boxes* (in the upper-right corner of the window) change. You can also enter EVPU values directly into these boxes. The number boxes control the page margins as follows:
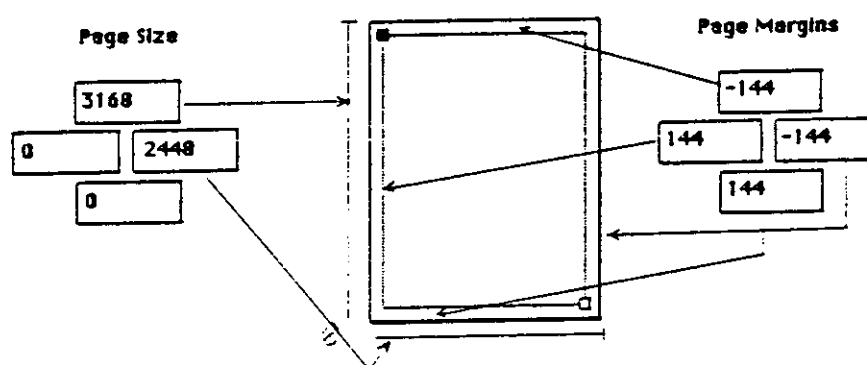

The dimensions of a Finale page are measured in EVPUs (288 per inch) from the bottom-left corner; therefore, the Left and Bottom coordinates are usually zero. The Page Margin measurements are the distances between each margin and the edge of the page. The default page margins are half an inch.

As before, click Default to undo any changes. (See also "Margins [page].")

- If you want to indent, resize, or respace a system, click Staff Systems. Each system appears outlined by a dotted line. To indent a system, drag its upper-left handle. To move a system (and subsequent systems) up or down on the page, drag the handle up or down. *Don't drag staff systems one by one as a method of changing the global distance between systems.* Instead, see the two subentries for "To change the distance between systems," above. Unless you turn off Avoid Margin Collisions in the Page Layout menu, Finale won't let you drag a system on top of another one.

Instead of dragging, you can enter EVPU values directly into the number boxes. These boxes control the system margins as follows:
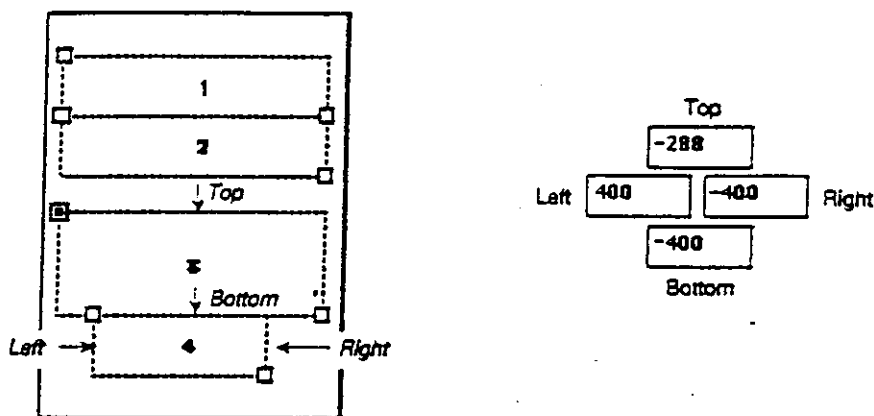
The system margins are the distances between each edge of the system and the page margin (on the right or left) or the next system (above or below). Usually the Top, Left, and Right system margins are zero, because each system neatly abuts the page margins (or the system above it). The bottom system margin—the small amount of space between the bottom of one system and the beginning of the next—defaults to –200 (about 3/4 inch). In the figure above, all of these default values have been changed to illustrate their effects on your page layout.

When you're viewing Staff Systems, you'll notice a boldface number on each system, and another at the bottom of the page. The numbers on the systems themselves are simply the system numbers, which identify each system so that you'll be aware if the system layout has shifted.

The number at the bottom of the screen represents the amount of additional space required to fit *the next system onto the page*, in EVPUs. In other words, if this number is 288, you need to create one more inch of space on the current page to allow room for the first system on the next page to be "pulled onto" the current page. To restore any system to its original shape and position, click its handle, then click Default.

• To edit another page, click Prev or Next. You can click Show Music any time you want to see the actual music, greatly reduced, for a rough idea of how your changes are affecting the score. (You must click Show Music again before resuming the page resizing).

In the Page Layout window, as with any Finale view, any changes you make to page size, system width, or margin width will affect the *measure layout*, which may result in strange measure spacing until you recalculate the measure layout.

• Choose Recalc Music from the Page Layout menu.
• Click OK to exit the Page Layout window.

TO CHANGE THE DEFAULT PAGE LAYOUT (FORMAT VARIABLES BOX)

See "Distances," "Margins (page)."

The changes you'll be making in these instructions establish the page layout for pages *yet to be created*. To apply them to existing pages, see the last two steps.

• Click the Page Layout Tool 🖾 . Finale switches to Page View, if it's not already there.
• Choose Format from the Special menu. The Format Variables box appears.
• Enter new values in the text boxes. Margin values are measured in EVPUs, of which there are 288 per inch. In all of these measurements, the number in the text box is positive if the element in question is *above* or to the *right* of the origin point, and negative if it's *below* or to the *left* of the origin point. (The "origin point" is the lower-left corner for the Page Boundary (page size) boxes, the edge of the page for Page Margin measurements, and the margins of the page for the System Margin measurements.)

The Page Size numbers specify the distances of the four corners of the page from the *bottom-left* corner. (The Bottom and Left values are zero, because they *are* the bottom-left corner.)

The Page Boundary (page size) numbers are the distances *from the edge of the page.* If the page size changes, the margins remain constant in relation to the edge of the page. The four boxes are: Top margin, Left margin, Right margin, Bottom margin.

The System Margin numbers define the placement and shape of the individual systems. The Right and Left margins are the distances from the edge of the system to the right and left *page margins,* respectively (both are usually zero). The Top margin is the distance between the top of each system and the bottom of the one above it (usually set to zero). The Bottom margin measures the distance between the bottom of one system and the top of the next. This last measurement's default is –200, so that there's a small amount of extra space between bottom of one system and the top of the next.

- Click OK. The changes you've made will affect only *new pages* added to the piece by Finale, unless you perform one of the following additional steps.

- To apply the new page layout to *one existing* page, click the page itself to enter the Page Layout window, click Page Size, Page Margins, or Staff Systems (and select a system's handle), then click Default.

- To apply the new page layout to *all existing* pages, choose Redefine All Pages from the Page Layout menu, and click OK.

TO APPLY A DIFFERENT PAGE LAYOUT TO SELECTED PAGES

The fact that there are two places to make page layout changes—the Page Layout window and the Format Variables dialog box—gives you some extra flexibility. Suppose you need a score in which right and left facing pages are formatted differently—each has different margin requirements. Using this system, you can apply a secondary page layout to *specified* pages.

- Create the primary page layout in the usual way. Either enter numbers into the Format Variables dialog box (Special menu) and then choose Redefine All Pages from the Page Layout menu, or see "To change the page layout (Page Layout window)," above. Make sure you've turned on Global Adjustment (Page Layout menu) so that your changes affect all pages.

- Choose Format from the Special menu. The Format Variables dialog box appears.

- Enter the numbers that define the secondary page layout. For help in interpreting the various measurement boxes in this dialog box, see "Distances." All values are in EVPUs (288 per inch). Any measurements *up* or to the *right* are positive numbers. Measurements *down* or to the *left* are negative.

- Click OK.

- Click the Page Layout Tool 回 . Finale switches to Page View, if it's not already there.

- Click the first of the pages you want to change. You enter the Page Layout window.

- Specify the element to which you want to apply the new formatting (Page Size, Page Margins, or Staff Systems). If you click Staff Systems, click the handle of the system to which you want the new formatting applied.

- Click Default. The default button applies the numbers from the Format Variables box to the selected page layout element, one page at a time. Using the Prev and Next buttons, move to any other pages you want to change, and click Default again for each.

- When you're finished, click OK. As always, choose Recalc Music from the Edit menu.

Page numbers   To add a page number, use the Header/Footer Tool in Page View.

TO ADD A PAGE NUMBER

- Click the Header/Footer Tool ▣ . Finale switches to Page View, if it's not already there.

- Double-click the page. The Header/Footer Designer appears. (If you want the credit to appear at the *bottom* of the page, click Footer.)

- Click one of the incidence options, and your choice of Justification. The three Justification options are Left (the header is flush with the left margin, with a handle on its left end), Right (flush with the right margin, handle on the right end), or Centered (centered between the margins, handle centered).

  The incidence options include All Pages, Only the Even Pages, and so on. If the music will ultimately be bound like a book (instead of accordion-style), you may want to create two or even three *different* page number header/footers: one to appear on page 1 (as a centered footer), another to appear at the top of even pages (a left-justified header), and another to appear at the top of odd pages (a right-justified header).

- Type the text for the number in the text box, substituting a number sign (#) for the digit itself. You produce the # sign by typing Shift-3. You can combine the page number with other text. For example, you could type "Page #," "ACT ONE PAGE #," the title of the piece plus "p. #," or just the number sign by itself. If you've broken your piece into several separate files, Finale can adjust the page numbering accordingly. In the Replace Number Sign with Page Number Added to the Page Offset box, enter the number of pages *preceding* this file.

- Click Set Font, and choose a font and style for the header. Click OK.

- Click OK to return to the score.

TO MOVE OR DELETE A HEADER OR FOOTER

- Click the Header/Footer Tool ▣ , if it's not already selected. A handle appears on every header or footer.

- Drag the header or footer's handle to move it. Select the handle and press Delete to remove it.

Page size   There are two places in Finale where you can set the page size: the Format Variables dialog box (Special menu) or the Page Layout window. A "page" in Finale can be as huge or as tiny as you can imagine—but bear in mind that some printers are limited in the sizes of paper they can handle. If you plan to print on any size paper larger than 8¼ by 11 inches, see "Printing" for special instructions. For other instructions on mixing and matching page size layouts, and a more complete discussion of page layout, see "Page layout."

TO SET THE PAGE SIZE FOR ALL PAGES (PAGE LAYOUT WINDOW)

- Click the Page Layout Tool ▣ . Finale switches to Page View, if it's not already there.

- Click the page you want to change. If you want to change the page layout of all pages at once, it doesn't matter which page you click. In any case, you enter the Page Layout window.

- If you want your changes to affect *all pages*, choose Global Adjustment from the Page Layout menu. If you don't, you'll be editing only the displayed page.

- Drag the handle in the upper-right corner of the mockup to change the page size. As you drag the handle, the values in the *number boxes* (in the upper-right corner of the window) change. If you've resized the page to the extent that it doesn't fit in the window,

drag the mouse anywhere in the window to reposition the mockup. You can also enter EVPU values (288 per inch) directly into the number boxes. To see their effect, click anywhere in the mockup area of the window. The number boxes control the page size as follows:
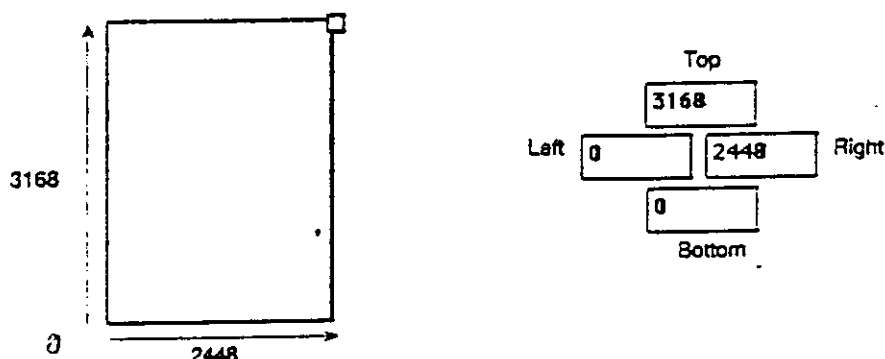
The dimensions of a Finale page are measured in EVPUs (288 per inch) from the bottom-left corner; therefore, the Left and Bottom coordinates are usually zero. You can change the page size either by dragging the handle at the upper-right corner of the page or by entering new numbers in the text boxes (right).

If you're not happy with your changes, click Default to restore the page to its original size and shape. (The Default button simply restores the page to the dimensions specified in the Format Variables box in the Special menu.)

- To edit another page, click Prev or Next. You can click Show Music any time you want to see the actual music, greatly reduced, for a rough idea of how your changes are affecting the score. (You must click Show Music again before resuming the page resizing).
- Choose Recalc Music from the Page Layout menu.
- Click OK to exit the Page Layout window.

To change the page size (Format Variables box)

See "Page layout—To change the default page layout (Format Variables box)."

Page turns A number of tools are at your disposal for adjusting the layout of your music to avoid awkward page turns. To manipulate individual measures from line to line, see "Measure layout." To manipulate systems from page to page, see below.

To push a system onto the next page

- Click the Page Layout Tool ▣. Finale switches to Page View, if it's not already there.
- Click the page you want to change. You enter the Page Layout window.
- Click Staff Systems. A mockup of the current system layout appears. Each system is numbered, and each has a pair of handles (at diagonally opposite corners). In order to "push" the last system onto the following page, you're going to *enlarge* the space beneath the system *preceding* it.
- Drag the lower-right handle of the *second-to-last* system downward. Drag just enough so that the *last* system disappears—it gets pushed onto the next page. If you now want to pull *all* the remaining systems down a bit to center the systems on the page, drag the upper-left handle of the *top* system down. All systems on the page move down accordingly. (Make sure not to drag them so far down that the *new* last system vanishes too.) If you want to undo any of your changes, click the upper-left handle of a system and click Default.
- Click OK. Choose Recalc Music from the Edit menu.

To Fit an Additional System onto Every Page

Finale always maximizes the number of systems on a page based on the *distance you've set between systems,* the *page reduction,* and the *page margins.* Therefore, there are a number of ways to fit an additional system on a page. If the problem is general (there are too few systems on *every* page), see "Page layout —To change the distance between systems". The cumulative effect of slightly decreasing the distance between staves may be enough to fit one more system on a page. Similarly, you may try reducing all pages slightly to achieve the same effect (see "Reducing/Enlarging"). You probably shouldn't try to to fit another system by widening the page margins though, because the default margin (½ inch) is already very close to the edges of the pages.

To Fit an Additional System onto One Page

- Click the Page Layout Tool 🔲 . Finale switches to Page View, if it's not already there.
- Click the page to which you want to add a system. You enter the Page Layout window.
- Click Staff Systems. A mockup of the current system layout appears. Each system is numbered, and each has a pair of handles (at diagonally opposite corners). In order to "pull" a system from the following page, you're going to *reduce* the space beneath each system on *this* page.
- Drag the lower–right handle of the first system slightly upward. Keep an eye on the boldface number just below the mockup of the page. This counter tells you how much more space you need to create before the next system fits on the page. If this step didn't solve the problem, drag the *second* system's lower–right handle slightly upward, too (preferably by the same amount. Watch the number boxes in the upper right corner of the screen: they measure how much you're dragging each system, in EVPUs (288 per inch). Continue to shrink each system slightly until you reduce the counter at the bottom of the window closer and closer to zero. When it hits zero, another system appears on the page.

  If, despite all your efforts, it looks like the next system simply won't fit without overlapping the existing systems, you'll have to use one of the global system-fitting options (see "Page layout—To change the distance between systems")—or reduce the music (see "Reducing/Enlarging").

- Click OK. Choose Recalc Music from the Edit menu.

Page View Page View is one of two Finale views of your music (the other is Scroll View). In Page View, you see your music as it will be printed: laid out in systems, displaying titles (and any other headers or footers), and stretching the measures as needed so that each line of music is flush with the margins. Because of this stretching effect, music that appears a little crowded in Scroll View often looks just right in Page View.

Every Finale Tool except the New Staff Tool is fully operational in Page View. In addition, Page View has a few features of its own, accessible from the View menu. If you choose Show Page, Finale will reduce the *view* of your music just enough to fit the entire page on the screen at once, automatically taking into account the size of your screen. You can also choose Rows of Pages, which displays all the pages in your piece, laid out side by side in rows across the screen. If you set the View resolution to a small enough value (choose View at X% from the View menu), you'll be able to see your entire piece at once. You can only *edit* the upper-left page.

Finally, Page View offers a feature called Display in PostScript. When you choose this command, Finale "prints" the actual PostScript instructions onto your screen, just as it would to a PostScript printer. Except for the fact that the screen resolution is much coarser than that of a printer, Display in PostScript provides the most accurate preview possible of how your music will look when it's printed on a PostScript printer. When you click the mouse, the display returns to normal.

In general, Page View is much slower than Scroll View. Each time the screen redraws, Finale not only has to draw more music, but must also perform many more calculations (to lay out the page, for example). For this reason, do as much of your editing as possible in Scroll View.

If measures are unevenly spaced in Page View, remember that Finale doesn't constantly rebalance the measure layout as you work. In fact, Finale doesn't recalculate the measure widths until you tell it to do so by choosing Recalc Music from the Edit menu. This vital command reformats every page, *from the one you're viewing to the end of the piece*, neatly laying out evenly spaced measures and justifying them with the margins. (If you need to recalculate the measure layout for the entire piece—as you should always do before printing—choose the command either in Scroll View or on page one of Page View.)

Parentheses

You can place parentheses around an accidental with a single keystroke (see below). You can also place parentheses manually around a note or a musical passage by placing them in the score as Note Expressions. (You can even define parentheses to be Staff Expressions or Score Expressions. See "Expressions: Staff Expressions" and "Expressions: Score Expressions.")

To place parentheses around an accidental

- Click the Speedy Note Entry Tool 🖾, and click the target measure. The editing frame appears.
- Use the directional arrows to position the insertion bar and crossbar on the notehead whose accidental you want to enclose in parentheses. You can also click the mouse on the desired notehead.
- Press the P key. Parentheses enclose the accidental. To remove the parentheses, press P again.

To place parentheses around a note or rest

You can also use the following technique to enclose musical passages longer than a single note. Apply the opening parenthesis to the first note of the passage, and the closing parenthesis to the final note.

- Click the Note Expression Tool 🖾.
- Click on, above, or below the note. The Note Expression Selection box appears.
- If you see the opening parenthesis in the selection box, double-click it. You return to the score, and the mark is attached to the note.
- If you don't see the opening parenthesis, click Create. The Note Expression Definition box appears.
- Type Shift-9. In the Petrucci music font, Shift-9 is the opening parenthesis. (Shift-zero [0] is the closing parenthesis.) Depending on the size of the note or chord you're enclosing, you may want to enlarge both parentheses by clicking Set Font and entering a higher point size.
- Click OK or Select in each dialog box to return to the score. Repeat the process with the closing parenthesis (which you'd attach to the last note of the passage [or to the right of the *same* note, if you only want to enclose a single note or chord].)

To move or delete a Note Expression parenthesis mark

- Click the Note Expression Tool 🖾.
- If the mark's handle isn't visible, click the note to which it was attached.

• Drag the handle to move the mark. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the mark and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO COPY PARENTHESES (AND OTHER ARTICULATIONS)
See "Expressions: Note Expressions—To copy Note Expressions."

## Part extraction See "Extracting parts."

Pasting
For information on copying and pasting music from one place to another (including from one file to another), see "Copying music." If you want to *insert* some music in between two existing measures, see "Inserting music." For information on copying and pasting individual elements of music (independent of the notes themselves), see the elements' individual entries ("Lyrics," "Chord symbols," "Expressions," "Cue notes," and so on).

Patches
Finale both records and plays back the MIDI data that causes a synthesizer to change *patches* (that is, programs or sound settings) during playback.

Not every synthesizer begins the numbering of its patches at 1 (some begin numbering at 0). Therefore, if you find that the numbers you enter in the following examples change your synthesizer to a patch number that's off by one, remember to alter numbers accordingly by adding or subtracting 1. (If your synthesizer isn't responding to the patch changes, make sure that program changes have been activated for those synthesizers having such a control.)

TO SET THE INITIAL PATCH SETTINGS FOR EACH STAFF
If you find it easier to set a patch for each MIDI *channel*, instead of each staff, see "To set the initial patch settings for each MIDI channel," below.

• Click the Staff Attributes Tool ⊠ . A handle appears on each staff.
• Click the handle of the first staff to be set. The Staff Attributes box appears.
• Click Set Output. A box appears, letting you specify the Output Route, MIDI channel, and initial patch setting for the staff. For a discussion of Output Routes, see "MIDI channels." For the moment, remember that each patch setting must have its own unique MIDI channel number (and Output Route number).
• Enter the initial patch setting for each element. The number you enter should correspond to the patch number as displayed by your synthesizer. You can set a different patch for Layers 1 and 2, and for chord symbol playback, *provided* each also has its own Output Route and MIDI channel assignment.
• Click OK. If you want to proceed to the next (or previous) staff to repeat the process, click Prev or Next.
• Click OK. Finale won't transmit these patch-change commands to the synthesizer, unless you instruct it to do so.
• Click the Playback Tool ⊡ . The Playback menu appears.
• Choose Playback Options from the Playback menu. A dialog box appears.
• Click Send Patches Before Play. Click OK.

TO SET THE INITIAL PATCH SETTINGS FOR EACH MIDI CHANNEL
The steps below show you how to establish an initial patch setting for each MIDI channel. The settings you're making are precisely the same as the ones you made in "To set the initial patch settings for each staff," above, except that you can set the initial patch settings for all MIDI channels at once with this method instead of one staff at a time.

- Click the Playback Tool ⑦. The Playback menu appears.
- Choose Initial Patches from the Playback menu. A dialog box appears.
- Enter the patch number for MIDI channel 1. If you want to send the patch change now, click Send. Finale responds by transmitting the patch change to the synthesizer (over the appropriate MIDI channel) and playing a five-note scale so that you can hear the new patch.
  If you want to continue assigning initial patches, click Next to advance the MIDI channel display. Enter a patch number. Repeat the process with any other MIDI channels (up to 64, if you're using multiple ports).
- Click OK.

TO SET UP A PATCH CHANGE ON PLAYBACK

These instructions tell you how to create an expression marking that produces a patch change during playback (such as "To strings").

- Click the Staff Expression Tool ⊞.
- Click on, above, or below the note at which you want the patch to change. The Staff Expression Selection box appears.
- If you've previously created the patch change marking, double-click it, and click OK. The expression appears in the score, where you can adjust its position.
- If the marking doesn't appear in the list, click Create. The Text Expression Designer appears.
- Type a patch change indication ("To Strings," for example). You can label the patch change any way you like, or you can leave the text box empty (if you want no graphic marking at all).
- Click Playback. The Playback Definition dialog box appears.
- Click MIDI Patch, and enter the patch number in the Set To Value box.
- Click OK or Select in each dialog box to return to the score. If you begin playback at a point in the score *after* the patch change indication, Finale won't "know about" the patch change, and you'll hear the staff play back using the initial patch.
  You can, however, tell Finale to "chase" the patch changes up to the point where you're beginning playback. That is, Finale will quickly scan the piece all the way from the first measure, noting (and transmitting to your synthesizer) any patch changes along the way (as well as volume and tempo changes), so that playback always begins using the current patch. See "To 'chase' patch changes before playback," below.

TO MOVE OR DELETE THE PATCH CHANGE MARKING

- Click the Staff Expression Tool ⊞.
- Click the note to which the mark was attached. Its handle appears.
- Drag the handle to move the mark. Select the handle and press Delete to remove it.

TO "CHASE" PATCH CHANGES BEFORE PLAYBACK

- Click the Playback Tool ⑦. The Playback menu appears.
- Choose Playback Options from the Playback menu. The Playback Options dialog box appears.
- Select "Fetch Expression Settings." Click OK. When you click a measure in the middle of a piece to begin playback, Finale will take a moment to scan your piece and "chase" any Staff Expression patch-change markings that occur earlier in the piece up to the measure you clicked. In so doing, Finale can keep track of any patch changes it encounters along the way, so that playback always begins with the correct current patch.

Pedaling A pedal marking involves two separate symbols—one where the pedal is to be depressed (℞), and another where it's to be released (✳). You can also use a dotted-line bracket.

There are two ways to create pedaling indications in Finale. If the markings don't need to be functional for MIDI playback, the easiest method is to place them in the score as Note Expressions. If you want to create graphic and *functional* pedal markings, create them with the Staff Expression Tool.

TO CREATE THE ℞ (PEDAL DOWN) AND ✳ (PEDAL UP) MARKINGS (NOTE EXPRESSION METHOD)

• Click the Note Expression Tool ⑤.

• Click on, above, or below the first note of the pedaled passage. The Note Expression Selection box appears.

• If you see the ℞ marking in the selection box, double-click it. You return to the score, and the marking is attached to the note you clicked.

• If you don't see the ℞ marking in the selection box, click Create. The Note Expression Definition box appears.

• Type ALT0161. In the Petrucci music font, ALT0161 is the ℞ marking.

• Click OK or Select in each dialog box to return to the score.

• Click on, above, or below the last note of the pedaled passage. The Note Expression Selection box appears.

• If you see the ✳ marking in the selection box, double-click it. You return to the score, and the marking is attached to the note you clicked.

• If you don't see the ✳ marking in the selection box, click Create. The Note Expression Definition box appears.

• Type Shift-8. In the Petrucci music font, Shift-8 is the ✳ marking.

• Click OK or Select in each dialog box to return to the score.

TO MOVE OR DELETE A NOTE EXPRESSION PEDAL MARKING

• Click the Note Expression Tool ⑤.

• If the marking's handle isn't visible, click the note to which it was attached.

• Drag the handle to move the marking. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the marking and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO CREATE THE ℞ (PEDAL DOWN) AND ✳ (PEDAL UP) MARKINGS (STAFF EXPRESSION METHOD)

• Click the Staff Expression Tool ✳.

• Click on, above, or below the note to which you want to attach the marking. The Staff Expression Selection box appears.

• If you've already created the ℞ marking, double-click it, and click OK. The marking appears in the score, where you can adjust its position.

• If the ℞ marking doesn't appear in the selection box, click Create. The Text Expression Designer appears.

• Click Set Font. Set the font to Petrucci 24, and click OK. You return to the Text Expression Designer.

• Type ALT0161. In the Petrucci music font, ALT0161 is the ℞ marking. (Shift-8 is the ✳ marking.)

- Click OK or Select in each dialog box to return to the score. Now click on, above, or below the note to which ♯ marking is to be attached. Repeat the steps above with the ♯ marking (for which Shift-8 is the Petrucci equivalent).

TO MOVE OR DELETE THE STAFF EXPRESSION 🎵 AND ♯ MARKINGS

- Click the Staff Expression Tool ⌨.
- Click the note to which the marking was attached. A handle appears on the marking.
- Drag the handle to reposition the marking. Select it and press Delete to remove it.

TO DEFINE THE 🎵 AND ♯ STAFF EXPRESSIONS FOR PLAYBACK

You'll need to define both markings for playback. The 🎵 marking will send a "pedal down" message to your synthesizer. The ♯ marking will send a "pedal up" message.

- Click the Staff Expression Tool ⌨. If you haven't yet placed the markings in the score, click any note. When the palette appears, click the marking, click Edit, click Playback, then skip to the instruction marked by the coda sign.
- Click the note to which the expression was attached. Its handle appears.
- CTRL-Shift–double-click the handle. The Playback Definition dialog box appears.
- Click MIDI Controller. In the Set To Value box, type 127. In the Use AuxData 1 text box, type 64. Select the Use AuxData 1 check box. You're defining the sustain pedal (controller 64) to go down (MIDI value 127).
- Click OK or Select in each dialog box to return to the score. Now you have to create a corresponding "pedal up" playback definition. If you haven't yet placed the ♯ marking in the score, click any note. When the palette appears, click the marking, click Edit, click Playback, then skip the next two instructions.
- Click the note to which the ♯ marking was attached. Its handle appears.
- CTRL-Shift–double-click the handle. The Playback Definition box appears.
- Click MIDI Controller. In the Set To Value box, type 0. In the Use AuxData 1 text box, type 64. Select the Use AuxData 1 check box. You're defining the sustain pedal (controller 64) to go up (MIDI value 0).
- Click OK or Select in each dialog box to return to the score.

Percussion clef See "Percussion parts."

Percussion parts There are many variations on percussion notation. The most common notation for drum set is to notate hands with stems up and feet with stems down. Cymbals (including hi-hat) and other wooden or metallic instruments are notated with X and diamond noteheads, while drums (or any membrane instrument) are notated with normal noteheads. Cymbals (including hi-hat cymbals) are notated in the space above the staff, snare in the third space (from the bottom), bass drum in the first space, and hi-hat (with the foot) in the space just below the staff. Tom-toms fill in the other lines and spaces (stems up). You can use a percussion clef, and even specify the number of staff lines.

If there are *key changes* in a score in which you've created special notehead shapes (as described below), make sure you read the subentry "To negate key signatures in a percussion part," below.

TO CHANGE THE NUMBER OF STAFF LINES

- Click the Staff Attributes Tool ⊟. A handle appears on each staff.
- Click the handle of the percussion staff. The Staff Attributes window appears.
- Click Special Staff. The Special Staff box appears.
- Specify the number of lines in the staff. You can enter any number between –12 and 100. If you specify a number above 5, extra lines are added to the bottom of the staff. For numbers between 2 and 4, lines are subtracted from the bottom of the staff. If you type 1, the resultant staff line is the "B line"—the center line of the normal staff. If you type zero, no staff lines appear, but Finale draws normal-height barlines (based on the height of a normal five-line staff).

  If you're creating a one-line staff, Finale lets you specify *which* "normal" line or space the single line should represent. If you type –1, for example, the single staff line would be the top line of the standard five-line staff. Type –2 to create a single line corresponding to the second line from the top, and so on.
- Click OK twice.

### TO BEGIN A STAFF WITH THE PERCUSSION CLEF

- Click the Staff Attributes Tool ⊟. A handle appears on each staff.
- Click the handle of the percussion staff. The Staff Attributes window appears.
- Click *Starting Clef*. The palette of clefs appears.
- Double-click the percussion clef (bottom left).
- Click OK. You can also change a staff to the percussion clef at any point by clicking the Clef Tool and clicking a measure. See "Clefs" for a more complete discussion.

TO CREATE ALTERNATE NOTEHEAD SHAPES FOR PERCUSSION PARTS

  You can instruct Finale to change the shape of every notehead of a specified value on a specified scale degree. If the key changes during a piece you've prepared in this way, see "To negate key signatures in a percussion part," below.
- Choose Floats from the Special menu. A dialog box appears.
- Click Float Note Shapes. Click OK.
- Click the Staff Attributes Tool ⊟. A handle appears on each staff.
- Click the handle of the target staff. The Staff Attributes window appears for the staff you clicked. You grant permission for changeable note shapes one staff at a time.
- Click Float Note Shapes. A scrolling key signature box appears. You can ignore it, unless you're working with nonlinear key signatures that have more than seven diatonic steps in an octave.
- Click OK. Another box appears.
- Click the the first notehead shape that you want to change to an alternate shape. The four basic note shapes in Finale are the quarter notehead ♪ (also used by eighth, sixteenth, and smaller note values), the half notehead ◦, the whole notehead o, and the double whole notehead ▯◦▯. For each note of the scale, you can specify an alternate notehead shape (X, diamond, and so on) for *each* of these four basic shapes. For example, you could specify that every half note occurring on the second scale degree will appear as a diamond notehead.
- Specify the scale degree for which you want to modify the selected notehead. To choose the scale degree, click the Prev and Next buttons to cycle through the notes of the scale, until the Diatonic Step indicator displays the desired step. This Diatonic Step counter treats the first note of the scale as *zero*, not 1. Therefore, a G in the key of C is Diatonic Step 4, not 5.
- Click *Symbol*. A palette appears, displaying every character in the music font.

- Double-click the symbol you want to serve as the alternate notehead shape. You can continue this way, using Prev and Next to move through the scale degrees, and clicking the desired notehead shape (quarter, half, whole, or double whole).

- Click OK twice. You return to the score, where the noteheads of the type and scale degree you specified have automatically changed to the alternate note shapes you selected.

TO NEGATE KEY SIGNATURES IN A PERCUSSION PART

When you create a percussion part in which you've assigned alternate notehead shapes to various notes of the scale (as described above), you may discover a problem if the *key changes* during the piece. Because Finale associates a notehead shape with a particular *scale degree*, a note that's an X notehead on the G line in one key may have a different shape in another key.

To avoid this problem, Finale provides a special option called *Negate Key Signatures*. When you select this option for the percussion staff, Finale *transposes all notes to the key of C*, throughout the entire piece (so that no key changes appear in the percussion part). The advantage of this feature is that it ensures that a given scale degree always falls on the same line or space of the staff, and thus your notehead shape assignments are preserved throughout the piece. For best results, then, follow the steps below *before* entering the notes of the percussion part.

- Click the Staff Attributes Tool ▣. A handle appears on each staff.

- Click the handle of the percussion staff in which you want key signatures negated. The Staff Attributes dialog box appears.

- Click Negate Key Signatures. Click OK. You return to the score, where all notes (if any) in the affected staff appear in the key of C, regardless of the key (or key changes) present in the other staves of the score.

Petrucci See "Fonts."

Phrase markings See "Slurs."

Piano brace See "Brace (Piano brace)."

Piano reductions See also "Imploding music."

Using Finale's "Implode Music" feature, you can condense the musical material from several staves onto a single staff—or, in the case of a piano reduction, onto two staves.

If the source staves contain several independent rhythms, Finale will do its best to sort them out, but you may still have to do some editing afterward. Implode Music works best when the source staves have only one or two independent rhythmic patterns.

TO CREATE A PIANO REDUCTION

- Click the Mass Mover Tool ▣.

- Select the region to be imploded for the treble-clef staff of the piano reduction. You can select a region of on-screen measures by Shift-clicking or drag-enclosing, or entire staves by Shift-clicking to the left of each.

- Choose Implode Music from the Mass Edit menu. The "Do you want the imploded music..." dialog box appears, asking whether the resultant reduction should appear on a new staff (at the bottom of the score) or whether the music should be imploded onto the top existing staff (in which case the current contents of that staff will be replaced).

- Click New or Top. If you've selected a large amount of music to be imploded, this process may take time. Any existing Note and Staff Expressions in the source staves will appear in the resultant staff.

- Repeat the procedure for the bass-clef staff of the piano reduction. Use the Staff Attributes Tool to change the clef for the bass staff (see "Bass clef"). If the resultant part is a rehearsal piano part that you want to appear at a smaller size, see "Reducing/Enlarging."

Pickup measure Finale provides several different techniques for creating a pickup measure.

TO CREATE A PICKUP MEASURE AT THE BEGINNING OF A PIECE

The following method creates a pickup measure by creating an "invisible rest" at the beginning of the measure. Any notes you enter will be "pushed" to the right of this invisible rest. (Be sure to follow these steps *before* entering the notes.)

- Choose Format from the Special menu. The Format Variables dialog box appears.
- Click *Pickup*. A palette of rhythmic values appears.
- Click the rhythmic value corresponding to the pickup note or notes. If the duration of the pickup notes is equivalent to a dotted note, click the dot also.
- Click OK twice, and enter the pickup notes. Finale will still play back the entire measure—including the invisible rest before the pickup measure. If you need to respace the pickup notes, see "To respace pickup notes," below.

TO CREATE A PICKUP MEASURE WITHIN A PIECE

- Enter the pickup notes *first*. For the moment, notate them at the beginning of the measure, even though they'll eventually appear at the end.
- Click the Mirror Tool ⊞ , and click the target measure. A dialog box appears.
- Specify the duration of the *rest* preceding the pickup notes (the "placeholder" value) by clicking the appropriate duration button, and entering the appropriate number in the "Rest for" text box. Click OK. Another box appears, asking whether the "placeholder" should apply to this measure in this staff *only*, or *all* staves.
- Click Only or All. Whenever the Mirror Tool is selected, any pickup measure displays the Mirror icon to help you recognize that it's been created with this tool.

TO RESPACE PICKUP NOTES

When you originally create a pickup measure, Finale positions the pickup notes according to their natural placement as dictated by the meter (thus creating a wide blank space in the left part of the measure). Use the following technique to pull the notes to the left to eliminate the empty left portion of the measure.

For this process to work properly, you should have an Allotment Library loaded (see "Allotments"). If DEFAULT.MUS is in place, an Allotment Library is already loaded.

- Click the Mass Mover Tool ⊞ .
- While pressing the 4 key, double-click the pickup measure. If you have multiple staves, double-click the one with the most notes. Finale respaces the measure on a *note-by-note* (entry specific) basis, according to the width assignments in the Allotment Library. (When you hold down a number key while clicking, you're using a *Metatool*. You've just used Mass Mover Metatool 4.)
- Click the Measure Attributes Tool ⊞ . A handle appears on each barline.
- Drag the top handle at the end of the pickup measure to decrease the measure width.
- Click the bottom handle (of the same barline). A "beat chart" appears above the music (see "Beat positions"). Each note in the measure now has two small square handles. The upper handle represents the note position according to the time signature (before you applied Metatool 4). The bottom handle can be used to move the beat as you desire.

• Drag the note handles so that the pickup notes are evenly spaced. If you press Shift while dragging a handle, all handles to its *right* move simultaneously.

• Click anywhere on the score to remove the beat chart.

Pitch bends See "Pitch wheel."

Pitch wheel The pitch wheel is a MIDI controller. As you move the wheel (on those synthesizers so equipped), the pitch of the entire keyboard shifts up or down by an amount you program on the synthesizer itself. Finale records and plays back pitch bends (the smoothly graduated, continuous shift of pitch that occurs when you use the pitch wheel). You can insert Staff Expressions or Score Expressions whose playback definitions involve the use of the pitch wheel.

When you record a performance with the Transcription Tool 🔢 , Finale automatically records all your pitch wheel data. You may or may not want this information retained ("captured") so that you can later hear it applied to the playback of your *transcription*.

TO RETAIN PITCH WHEEL DATA FOR SCORE PLAYBACK

• Record a performance that includes pitch wheel data with the Transcription Tool 🔢 . See "Real-time recording (Transcription Tool)" for instructions on recording a performance.

• Before saving or transcribing the performance, click Capture MIDI Xpression. If Use Captured MIDI Expressions is selected in the Playback Options dialog box (in the Playback menu), you will hear your pitch bends when you play back the transcription.

TO COPY OR ERASE PITCH WHEEL DATA

See "MIDI—To copy or erase captured MIDI data."

TO CREATE A PITCH BEND (AS A STAFF EXPRESSION)

The following instructions show you how to create a Staff Expression that produces a smooth pitch bend over the course of one whole note—from the pitch wheel's at-rest position to its top position and back down again. It's impossible to predict the precise musical effect this will have on your synthesizer, because pitch wheels on different synthesizers have different intervallic ranges. On some, you can specify this range (usually up to an octave or so up or down).

If you want to learn the process of creating a pitch wheel expression, by all means follow this example. You may prefer to load the pitch wheel *library* that's in your LIBRS directory, because this library already contains the expression you're about to create. Choose Load Library from the File menu. Locate PTCHBEND.LIB (in the LIBRS directory), and double-click it.

• Click the Staff Expression Tool 🔢. Click on, above, or below the note to which you want to attach the marking. The Staff Expression Selection box appears. If the pitch bend expression marking already appears in the list (because you've loaded the Pitch Bend Library, for example), double-click it and click OK. You return to the score.

• Click Create. The Text Expression Designer appears. Type "Pitch bend" (or whatever expression, if any, you want to appear in the score at the location of the pitch bend). Click Set Font to change the font and style.

• Click Playback. The Playback Definition dialog box appears.

• Click MIDI Pitchwheel, then click Execute Shape. Proceeding through the dialog boxes, click as follows: Create, *Shape ID*, Create. You're now in the Shape Designer.

- Click View. Enter 20 (%) and click OK. When you use the Shape Designer to create a pitch bend, the range of pitch wheel values is from 0 (pitch wheel at the bottom of its range) to 16,384 (pitch wheel at the top of its range). The pitch wheel's value when it's "at rest" is 8192.

  Because these values are so large, you've just reduced the Shape Designer display so that you'll be able to see the entire shape in the window at once. You're about to design an *Executable Shape*—a shape whose contour governs the effects of the pitch bend. (For more on Executable Shapes, see "Expressions: Staff Expressions—To define an expression for Playback [Staff or Score Expressions].")

- Enter 576 in the X box and 4096 into the Y box. Click the Line Tool ☑ . You just drew a steeply upward-sloping line—in this case, the first half of the Executable Shape that governs the pitch wheel movement.

- Enter 1152 in the X box and 0 into the Y box. Click the Line Tool ☑ . You just completed the shape. If you look at the inverted V you've just created, you'll realize that this Shape Expression first bends the pitch wheel up, then back down to its original position.

- Click OK, then Select.

- In the Time Scale boxes, enter 1:4. The shape you drew would produce a very slow pitch bend. In fact, it would last for sixteen beats. By entering a 1:4 Time Scale ration, you've just told Finale to make the pitch bend last only ¼ as long—for the duration of a whole note.

- In the Level Scale boxes, enter 72:1. Remember that a pitch wheel's actual "all-the-way-up" value is 16,384. By multiplying the height of the shape you drew by 72, you're telling Finale to make the pitch bend 72 times more pronounced. If you didn't, you probably wouldn't even be able to perceive the pitch bend.

- Click OK or Select in each dialog box to return to the score. Listen to the pitch bend in playback and see how it works. If you want it to be less pronounced, decrease the Level Scale (or change the maximum pitch bend interval on your synthesizer). If it lasts too long, decrease the Time Scale.

  If you entered text for the pitch bend expression, click the note to which it was attached. The expression's handle appears. Drag this handle to move the expression. Click it and press Delete to remove it.

– **Pizzicato** The pizzicato marking (*pizz.*) is a Staff Expression. If you want to define the pizzicato marking for playback, you have several options. If your synthesizer has a pizzicato sound (or patch), you could define the *pizz.* marking as a patch change (see "Patches"). (If you use this method, you'll also have to create a second Staff Expression—which *can be* invisible—to restore the playback to its original patch.)

If you simply want to hear selected notes play back with a staccato sound, see "Staccato."

To create the "pizz." marking

- Click the Staff Expression Tool ☑ .
- Click on, above, or below the note to which you want to attach the marking. The Staff Expression Selection box appears.
- If you see the *pizz.* marking in the selection box, double-click it, and click OK. The *pizz.* marking appears in the score, where you can adjust its position.
- If you don't see the *pizz.* marking in the selection box, click Create. The Text Expression Designer appears.
- Type *pizz.* Click Set Font to change the type style (to italic, for example).
- Click OK or Select in each dialog box to return to the score.

To MOVE OR DELETE THE "PIZZ." MARKING

- Click the Staff Expression Tool 🔳.
- Click the note to which the marking was attached. The marking's handle appears.
- Drag the handle to reposition the marking. Select it and press Delete to remove it.

Plainchant See "Barlines—To hide all barlines (no-barline music)," "Stemless notes."

Playback Finale can play your score back over any MIDI channel configuration you can devise. See "MIDI channels" to find out how to assign each staff to a MIDI channel.

When Finale plays back, it responds to any musical markings you've placed in the score, such as staccato or accent marks, dynamics, and MIDI patch and channel indications. For details on creating playback-intelligent symbols, see "Expressions." (There are separate entries for Note, Staff, and Score Expressions.)

If you create a score by transcribing a live performance with the Transcription Tool (or by importing a MIDI sequencer file), you have the option of storing *captured MIDI data.* Captured MIDI data includes all the MIDI information generated during your performance that makes it unique and "human" sounding: key velocity data (how hard you struck the keys), MIDI controller information (your use of the sustain pedal, the pitch wheel, and other controllers), and "Time Dilation" data—tempo fluctuations including ritards and accelerandi. If you "capture" this data before transcribing the performance into notated form, Finale will retain it even after the performance has been turned into notation, and will play it back—nuance for nuance—at any time. If you prefer, however, you can listen instead to the "sheet-music" version of your score, as Finale simply reads the quantized, *notated* version of the piece without any variations in tempo or expression.

If you plan to transcribe your real-time performances or use Finale as a notation-based "sequencer," then it's important to understand this distinction between a playback of the *score* and a playback using the captured MIDI data. A number of Finale functions apply to only one kind of playback or the other.

Finally, it's important to realize that the notated score and the captured MIDI data aren't completely independent. Suppose you transcribe a performance with the Transcription Tool and capture the MIDI data. When you play the piece using the captured MIDI data, you'll hear it played with your original "feel"—volume, tempo, pedaling, and so on. Yet you can *edit* the transcription by changing notes, transposing, adding dynamics or other playback expressions—and you'll hear the edited music play back with the captured MIDI data still intact.

For instructions on capturing performance data, see "Real-time recording (Transcription Tool)" and "MIDI Files—To import a MIDI File."

To PLAY BACK A SCORE

- Click the Playback Tool 🔳. The Playback menu appears.
- Click the measure at which you want to begin playback. Click Start. Immediate Playback begins.
  The behavior of playback is governed by the settings in the Playback Options dialog box (which appears when you choose Playback Options from the Playback menu).
- Click Stop at anytime to stop playback.

To SPECIFY PLAYBACK PARAMETERS

When you play back your score using the method above, Finale checks the Playback Options to obtain certain playback parameters, as described here.

• Click the Playback Tool ③. The Playback menu appears.

• Choose Playback Options from the Playback menu. The Playback Options box appears.

• Select the playback parameters you prefer. Click Fetch Expression Settings if you want Finale to quickly scan your piece and "chase" any Staff Expression or Score Expression markings that occur earlier in the piece (up to the point you clicked). These might include tempo, dynamics, patch changes, and so on. Select this option if you're starting playback in the middle of the piece and want these playback variables to be current (and transmitted to your synthesizer) at the playback starting point. If you click New Expression Settings instead, Finale will ignore any changes that have occurred prior to this point in the score, and will begin playing based on the markings available in the measure you clicked.

Default tempo: 96   **Presto**

In this figure, a Score Expression tempo marking has been placed in the third measure; its playback definition is Tempo=200. If you begin playback at the measure marked by the arrow, Finale will normally use the default playback tempo (96) instead. If you've selected Fetch Expression Settings, however, playback will begin with the new tempo, because Finale will take a moment to scan the piece from the first measure so that it can take any tempo changes into account.

Select Init Repeats if you want any repeat barlines (or text repeats) to be "set to zero" each time you begin playback again. If you *don't* specify Init Repeats, Finale will remember how many times each repeat has been "activated." If you're proofreading a score by playing a section at a time, you probably won't want to select this option, so that Finale will "remember its place" as you play each section.

Next, specify any *captured MIDI data* you want incorporated in the playback. Captured MIDI data is captured from a real-time performance in the Transcription Tool (or imported in a standard MIDI file from another sequencer). Select Use Captured Performance if you want the playback to incorporate the key velocity (volume) information and Start and Stop Time data (tiny beat-by-beat tempo fluctuations such as rolled chords and swing) from the original performance. Select Use Captured MIDI Expressions if you want the playback to use the pedaling, pitch wheel, aftertouch, and other MIDI controller information from the original performance. Finally, select Auto Start Time Dilation if you want the tempo fluctuations from the original performance—including accelerandi, ritards, and so on—used during playback.

Click Send Patches Before Play if you want Finale to send initial patch settings to your synthesizers before beginning the playback. The initial patch settings are determined by the Initial Patches dialog box (Playback menu). You can also specify initial patch settings for each staff individually. Click the Staff Attributes Tool, click the staff's handle, then click Set Output. See "Patches" and "MIDI channels."

Finally, click Play All Staves if you want Finale to play all staves, even those you've hidden. Click Play Visible Staves if you don't want the hidden staves to play back. (You can hide staves by creating configurations of staves called Staff Templates. See "Hiding staves" for step-by-step instructions.)

• Click OK.

To program a Playback Metatool

If you find yourself frequently changing the Playback Options (see "To specify playback parameters," above), you might want to consider using Playback Metatools. A Playback Metatool is a complete set of Playback Options (and a specified range of measures) that's been assigned to a single key on your keyboard. Because a Metatool stores your choice of Playback Options, you can switch from one set of options to another without having to make new settings in the Playback Options dialog box. (You might want to program one Metatool to play the notated score itself, while another might play back the captured MIDI data, for example.) And because each Metatool remembers the range of measures it's to play, you can use them to play back various predetermined remote parts of your score without having to scroll to see them. You can create up to eight sets of Playback Options settings, assigning one to each number key (1 through 8).

- Click the Playback Tool ⑨ . The Playback menu appears.
- While pressing the CTRL key, press a number (1 to 8). The Playback Range box appears.
- Specify the range of measures to be played when the Metatool is used. Click OK. Now the Playback Options box appears.
- Specify the playback variables in the Playback Options box. For a detailed discussion of these options, see "To specify playback parameters," above.
- Click OK. Repeat the process with the remaining number keys, if you like. To hear a playback using the Metatool settings, see "To use a Playback Metatool," below.

To use a Playback Metatool

- Click the Playback Tool ⑨ . The Playback menu appears.
- While pressing a number key (1 to 8), click the score. Finale plays the music based on the settings you made when you programmed the Metatool (see "To program a Playback Metatool," above). If you haven't programmed Metatools of your own, Finale will use its "default" (preprogrammed) Playback Metatools, as follows:

Metatool	Predefined selections from Playback Options dialog box
1	Fetch Expression Settings, Init Repeats
2	Fetch Expression Settings, Init Repeats, Use Captured Performance
3	New Expression Settings
4	New Expression Settings, Init Repeats
5	New Expression Settings, Init Repeats, Use Captured Performance

Note: All of these preprogrammed Playback Metatools begin playing back with the measure you click. (They don't include selections from the Playback Range dialog box, but the ones you program may.)

To "audio spot-check" music

- Click the Playback Tool ⑨ .
- While pressing CTRL, drag the cursor across your score. As the cursor strikes each note, you hear it played on your MIDI keyboard. You can drag in any direction, and at any speed, and from one staff to another. You might use this technique for checking chord voicings, scanning small sections for wrong notes, or just for fun.

Polyphony See "Multiple voices."

Portrait orientation Under normal circumstances, Finale prints your pages in *portrait orientation*—with the page taller than it is wide. For some scores you may want the page turned sideways, in *landscape orientation*. For instructions on specifying printing orientation, see "Printing."

PostScript See also "Encapsulated PostScript (EPS)."

PostScript is the *page-description language* that the computer and some printers use when they "speak" to each other. Finale's printouts look best when generated by a PostScript printer.

There are a few places in Finale where its PostScript orientation is evident. For example, in the Format Variables dialog box (choose Format from the Special menu), you'll see a button called PS Variables. Click this button to access a dialog box in which you can specify minute measurements for two dozen musical elements: thickness of staff lines, depth of beams, and so on. For descriptions of these elements, see "PostScript Variables dialog box" in *Finale Reference*.

In Page View, you can choose Display in PostScript from the View menu. When you choose this command, Finale "prints" the actual PostScript instructions onto your screen—the same instructions it would send to a PostScript printer. Except for the fact that the screen resolution is much coarser than that of a PostScript printer, Display in PostScript provides the most accurate possible preview of how your music will look when it's printed. When you click the mouse, the display returns to normal.

You may also have discovered that Finale's Shape Designer doesn't work in quite the same way as other graphics programs. That's because the shapes you create in this mode are actual *PostScript commands*, which print beautifully and cleanly on a PostScript printer.

Finally, you may wish to understand how Finale interacts with PostScript when you print. When you choose Print Score from the File menu, Finale performs two steps. First it generates a PostScript *listing* (a coded description of every element on the page, its size and position, and so on). Then it *downloads* (transmits) this code to the PostScript printer, which translates it into a printed image.

You can break down these two steps into separate procedures by choosing Compile PostScript from the File menu. This command tells Finale to perform the first step (creating the PostScript listing) without performing the second (downloading it to the printer). You'll be asked to name the listing, and it will be saved on your hard disk.

Why would you want to create a compiled PostScript listing in this way? There are several advantages. First, a file prepared and printed this way takes less total time to print than if you use the Print Score command. Second, you can transport the listing file on a disk to print elsewhere (such as a commercial PostScript printer or Linotronic output service) without having to bring the Finale program itself. (Be sure to take PETRU.PSF with you!) Third, the Compile PostScript command permits you to prepare and print full-size scores (11 by 17, or as large as you like). See "Page size" and "Tiling pages."

To print this listing (print file), you need a *downloading* program capable of sending it to the printer, just as Finale does automatically when you choose Print Score.

When you choose Print Score from the File menu, the first thing Finale must do is to download the Petrucci music font (PETRU.PSF) from your FINALE directory. To print a PostScript listing, then, you must download the font manually (once again, using a downloading program) before you print your listing.

Printing Before you print, make sure you've installed the printer driver for your printer. Once you've done that, you'll have to specify which driver to use by opening the Control Panel from the Control-menu. (Unless you switch from printer to printer, the Control Panel is only needed the first time you print. Thereafter, Windows remembers which printer you selected.) Consult your Microsoft Windows User's Manual and your printer user's manual for complete instructions.

To PRINT A SCORE

Portrait orientation is the usual setup—the page is taller than it is wide. *Landscape orientation* is "sideways." *Letter size* is 8½ by 11 inches. *Legal size* is 8½ by 14 inches. If you're printing on a PostScript printer, make sure you've installed PETRU.PSF, and check to see that you've used PostScript fonts to create all text (lyrics, titles, text blocks, expression marks).

- Choose Printer Setup from the File menu. A dialog box appears. Specify the paper size and the orientation.
- Click OK.
- Choose Recalc Music from the Edit menu. If you're in Page View, scroll to page one before choosing Recalc Music. By choosing Recalc Music, you're telling Finale to reformat the music so that the measures are spaced properly.
- Choose Print Score from the File menu. A dialog box appears, letting you specify the number of copies and the range of pages to print. If you only want the first page to print, click From, and then type 1 into both the From and To boxes.
- Click OK. The printer should begin to print momentarily.
- To cancel printing, click Cancel. Because the computer sends data to the printer faster than the printer can process it, there will be a momentary pause before the computer and printer stop printing.

To PRINT LARGE SCORES BY TAPING SMALLER PAGES TOGETHER

See "Tiling pages."

To CORRECT END-OF-SYSTEM PostScript PRINTOUT PROBLEMS

If you're using a PostScript printer to print a file containing many key and time signature changes within a system, you may notice peculiar spacing of the key or time change at the end of the line. If that's the case, do the following:

- Press CTRL while choosing Recalc Music from the Edit menu. Finale performs a "floating-point" recalculation that corrects the printout problem (but may make the screen display appear slightly misaligned).

Punch in/Punch out The terms "punch in" and "punch out" are sequencing and recording terms. They refer to the act of rerecording, in a second pass, only a portion of a performance you've already recorded. For example, they allow you to rerecord only a flawed part of a performance that was otherwise perfect.

You can punch in and out in Finale's Transcription window. By clicking the Keyboard Play radio button and the Time Tag Record radio button, you can also rerecord *Time Tags* for a certain passage. For further instructions on the use of the Transcription Tool, see "Real-time recording (Transcription Tool)." You can tell Finale to play a "countoff" measure or so of music before switching to "record" mode, if you want.

TO PUNCH IN AND OUT

- Record your performance in the usual way. Again, see "Real-time recording (Transcription Tool)" for complete instructions.

- Specify the region you want to rerecord. To tell Finale what region you want to rerecord, you need to enter the exact starting and stopping times in the In and Out counters (in the lower-right corner of the screen). These indicators specify the starting and ending points of the selected region, expressed in hours, minutes, seconds, thousandths of a second. To edit these numbers directly, click the *word* In or Out, and change the numbers by typing new values.

  You may find it easier to select a region by dragging through a section of the display area. These counters change automatically to reflect your selection. You can also set either indicator by clicking—click the word In or Out, then click in the display area.

  To locate the places where you want to punch in and out, drag through the keyboard display area of the Transcription window, so that a portion of it is highlighted. Under the word Keyboard, click Play. Click Start to listen to the highlighted music. Repeat the process until you've located the exact places in the music where you want to punch in and out.

- Under the word Keyboard, click Punch In/Out.

- Choose Set Punch Preroll from the Transcribe menu. You'll probably want Finale to play a few seconds of the music just *before* the spot you want to rerecord, so you can hear the desired spot in context and in tempo. The dialog box that now appears allows you to specify how many seconds of the existing music you want Finale to play before switching into record mode (at which point you'll begin to play the new music).

- Enter the number of seconds of preroll you want. Click OK. You're now ready to begin.

- Click Start. Finale plays the music preceding the punch-in point for the number of seconds you specified, then begins recording your new performance. When Finale reaches the point you specified as the punch-out point, it stops recording.

Quantizing Quantizing is the computer's process of rounding off the rhythmic values of the notes you played in a performance to the nearest eighth note (or sixteenth note, or whatever value you specify), to create a cleaner, more readable transcription. Because Finale's sense of rhythm is much finer than ours, if it didn't quantize your performances, the resulting transcription would be filled with triple-dotted notes, sixteenth-rests, and bizarre tuplets tied together.

For instructions on quantizing, see the entries pertaining to real-time transcription: "Real-time transcription (HyperScribe)," "Real-time recording (Transcription Tool)," "Tuplets," and so on. For an introduction to the concept of quantization and, in particular, Floating Quantization, see Tutorial 5 in *Learning Finale*. Finally, for a more technical discussion of Floating Quantization settings, see Appendix 3 of *Finale Reference*, the "Real-time Transcription Settings Guide."

Quarter notes You can enter quarter notes into the score with or without MIDI keyboard input. You can also change any existing note into a quarter note.

To add a quarter note (using MIDI input)

• Click the Speedy Note Entry Tool ⊡. The SpeedOptions menu appears. Make sure there's a check mark beside Use MIDI Keyboard.

• Click the target measure. The editing frame appears. Position the insertion bar to the right of any existing notes in the measure.

• Hold down a key (or keys) on the synthesizer and press the 5 key on the computer keyboard. Any pitches you played appear as quarter notes.

To add a quarter note (without MIDI input)

• Click the Simple Note Entry Tool ⊡. The Simple Note palette appears.

• Click the Quarter Note ⊡.

• Click where you want the note to appear in the score. A quarter note appears.

To change a note's duration to a quarter note

• Click the Speedy Note Entry Tool ⊡. Click the target measure. The editing frame appears.

• Press the right arrow until the insertion bar is on the note whose duration you want to change.

• Press the 5 key. The note changes to a quarter note.
  Alternative method: Click the Simple Note Entry Tool ⊡, click the Quarter Note ⊡, then click the note you want to change.

Quindicesima (15ma) See "8va/8vb."

Quintuplets You can define notes into quintuplet groupings either before or after they've been put in the score. You can also input quintuplets in real time using HyperScribe or the Transcription Tool.

To enter quintuplets using the Speedy Note Entry Tool

• Click the Speedy Note Entry Tool ⊡, then click the target measure. The editing frame appears.

- Press CTRL-5. In the Speedy Note Entry mode, you tell Finale that you're about to enter a *tuplet* by pressing CTRL and the number key corresponding to the type of tuplet you want (3 for triplet, 7 for septuplet, and so on). A 5 appears in the upper right corner of the editing frame, letting you know that Finale is awaiting the input of the notes.

- Enter the notes of the quintuplet. Finale automatically groups them as a quintuplet. For details on defining the appearance of the tuplet—bracket, slur, ratio ("5:4" instead of a single digit), and so on—see "Tuplets."

TO TURN EXISTING NON-TUPLET NOTES INTO A QUINTUPLET

- Click the Tuplet Tool 🔢 , and click the first of the notes that will become a quintuplet. The Tuplet Temporal Definition dialog box appears.

- Specify the temporal definition of the tuplet. In other words, click the appropriate buttons and type the proper numbers into the boxes: "5 eighths in the space of 1 half," for example. You can also specify the *appearance* of the tuplet—bracket, slur, ratio, and so on (see "Tuplets").

- Click OK.

TO ENTER QUINTUPLETS WITH HYPERSCRIBE OR THE TRANSCRIPTION TOOL

For a more complete discussion of HyperScribe and the Transcription Tool, see Tutorial 5 in *Learning Finale*. See also "Real-time transcription (HyperScribe)" in this volume. You can also use the basic technique here with the Transcription Tool. Record your performance, and the Time Tags, in the usual way. Ignore the quantization value setting in the Transcribe menu. Instead, choose Floating from the Transcribe menu, and skip to the instruction marked by the coda sign.

- Click the HyperScribe Tool 🔢 . The HyperScribe menu appears.

- Choose Tap Duration from the HyperScribe menu. The HyperScribe Tap Duration box appears.

- Click *Duration*, then click the duration value you'll be tapping. Click OK. The rhythmic value of your tap appears in the *Duration* box, expressed in EDUs (ENIGMA Durational Units, of which there are 1024 per quarter note). The Division box, which refers to the quantization level, indicates the *subdivision* of the Tap Duration to which your performance will be quantized. In other words, the Duration value divided by the Division value equals the quantization value. For example, if you've specified that you'll be tapping quarter notes (which have 1024 EDUs each), the number in the Division box says 2, meaning that Finale is prepared to quantize your performance to *one-half* of your foot tap duration—in this case, eighth notes.

- Click Float Quantizing. By choosing Float Quantizing, you're allowing Finale to *vary* the quantization level on a beat-by-beat basis, based on the *number* of notes you played within each beat. For example, if Finale "hears" *three* notes between two of your taps, it knows immediately that they're not eighth notes (the quantization value)—they must be something smaller (probably a triplet). Finale will immediately jump to a finer quantization level, based on your settings in the Floating Quantization box. If you use Floating Quantization, Finale automatically changes the number in the Division box to indicate the *finest* quantization (division) it will transcribe with the current Floating Quantization settings.

- Click Non-Timed Tuplet. Enter 5 in the Highest Tuplet box. Non-Timed Tuplet means that Finale will simply *count* how many notes fell between your taps and assume that they're some form of tuplet (see "Real-time transcription [HyperScribe]" for further details). The Highest Tuplet box lets you specify the smallest tuplet value you expect to be playing. Type 3 for triplets, 5 for quintuplets, and so on.

- Click Float, then click OK. Make your other HyperScribe settings as usual. See "Real-time transcription (HyperScribe)" for further descriptions of these options. (If you're using the Transcription Tool, click Transcribe.)

- Play your piece. Click anywhere on the screen to stop the transcription. As described in "Real-time Transcription (HyperScribe)," don't forget to play *one extra measure* of taps and music after the end of your performance, to "flush the buffer."

Depending on the value of the quintuplets and your Tap Duration value, you may encounter grace notes in the transcription. The presence of grace notes is an indication that you have to change the Float Quantizing sensitivity, which represents the resolution of Finale's search for tuplets. Choose Tap Duration again from the HyperScribe menu, click Floating Quantization, then click *Sensitivity*. From the palette of durations that appears, click the next smaller value and press Enter three times. Try your performance again. Change the sensitivity again if the problem persists.

Railroad tracks See "Cesura."

Rallentando In Finale a rallentando can be a playback effect, a graphic marking in the score, or both. The *Rall.* marking itself can appear in one staff (as a Staff Expression) or several staves (as a Score Expression).

TO PLACE THE *RALL.* MARKING INTO A SCORE

- Click the Staff Expression Tool ⊞ (to place the marking in one staff) or the Score Expression Tool ⊠ (to place it in several or all staves).
- Click on, above, or below the note (for Staff Expression) or measure (for Score Expression) to which you want to attach the marking. The Staff Expression or Score Expression Selection box appears. If the marking already appears in the list, double-click it, and click OK.
- Click Create. The Text Expression Designer appears.
- Type "Rall." or "Rallentando." Click Set Font to change the type style (to italic type, for example).
- Click OK or Select in each dialog box to return to the score.

TO MOVE OR DELETE A *RALL.* MARKING

- Click the tool (Score Expression or Staff Expression) that you used to create the marking.
- Click the measure (Score Expression) or note (Staff Expression) to which the marking was attached. Its handle appears.
- Drag the handle to move the marking. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it.

TO DEFINE A *RALL* MARKING FOR PLAYBACK

- Click the tool (Staff Expression or Score Expression) that you used to create the expression. If you haven't yet placed the marking in the score, click any note. When the palette appears, click the desired symbol, click Edit, click Playback, then skip to the instruction marked by the coda sign.
- Click the measure (Score Expression) or note (Staff Expression) to which the marking was attached. Its handle appears.
- CTRL-Shift–double-click the handle. The Playback Definition box appears.
- Click Tempo, then click Execute Shape. Proceeding through the dialog boxes, click as follows: Create, *Shape ID*, Create. You're now in the Shape Designer.
- Click Grid. Enter 36 (EVPUs) and click Show Grid. In the Shape Designer, a horizontal distance of 36 EVPUs (of which there are 288 per inch) corresponds to an eighth note duration. Thus, each vertical gridline in the grid you've created represents one eighth note duration, and each horizontal gridline represents a one-beat drop in tempo (from 150 to 149 beats per minute, for example).
- Enter 288 in the X box and –288 into the Y box. Click the Line Tool ⊿ . You just drew a *graph* (an Executable Shape) of the tempo during the rallentando. As you see, the line stretches for eight vertical gridlines (or eighth notes—in other words, this rallentando will last for one whole note). The line also crosses eight horizontal gridlines, meaning the tempo will decrease by eight beats per minute (in terms of metronome settings).
- Click OK, then Select.
- In the Level Scale boxes, enter 8:1. You probably wouldn't even be able to perceive a rallentando that only slowed down by eight beats per minute during a 4/4 measure. By changing the Level Scale, you're multiplying the *degree* of rallentando. If you enter 8:1, the tempo will change by 64 beats per minute—a much more satisfying rallentando.

At this point, you could also specify a different Time Scale, which would determine *how long* the executable shape would last. When you designed the shape, it crossed eight gridlines (each representing an eighth note duration, for a total of one whole note). Change the Time Scale to *multiply* that rate of rallentando. A Time Scale of 1:2 would create a rallentando lasting half as long (a half note), and 3:1 would create a rallentando that takes three times as long.
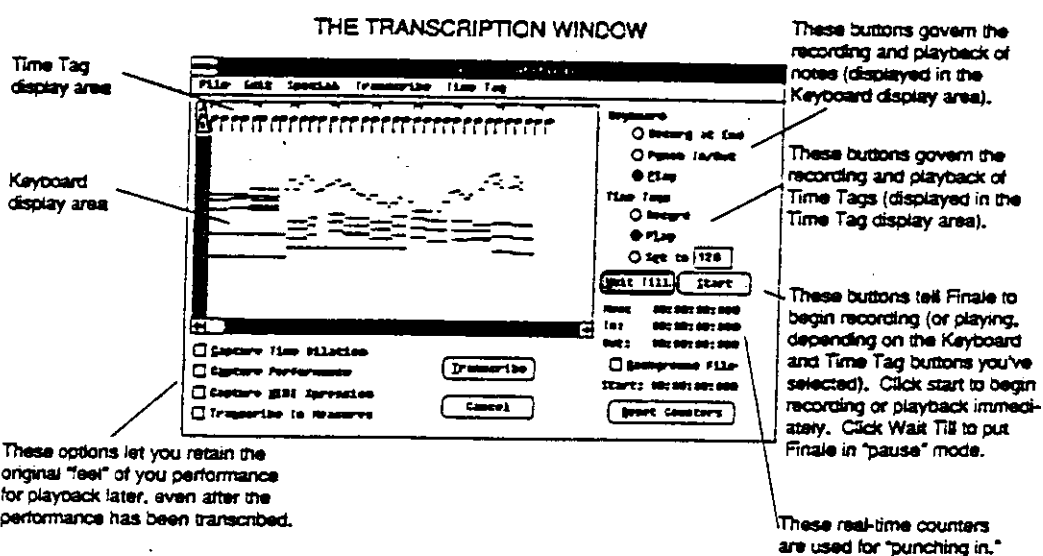
- Click OK or Select in each dialog box to return to the score. Listen to the rallentando in playback and see how it works. If it doesn't slow down enough, increase the Level Scale. If it lasts too long, decrease the Time Scale. (The effect of the rallentando will vary according to the current tempo.)

Real-time recording (Transcription Tool)

The Transcription Tool borrows certain elements from a sequencer, but it exists for the purpose of notating your performances. Unlike HyperScribe, in which you provide a tempo reference point by tapping as you play, the Transcription Tool lets you provide these taps *after* (or during or before) you've recorded the performance. While Transcription Tool's gratification isn't instant, it offers you the chance to try various transcription settings, quantization levels, and so on, without having to rerecord your original performance.

If you haven't worked with a sequencer before, you may encounter some terms that are new to you. One example is *quantization*. Finale's sense of rhythm is much finer than ours. In fact, it perceives subdivisions of rhythm down to 1024ths of a quarter note. (These very small rhythmic increments are called ENIGMA Durational Units, or EDUs.) Because Finale's sense of time is so precise, the program will round off, or *quantize*, your performance to the nearest eighth note, quarter note, or whatever rhythmic value you specify. If it didn't, your transcription would be much *too* accurate—it would be filled with 128th rests, tuplets, hundreds of ties, and a forest of 64th notes.

Controllers are devices on your MIDI keyboard that modify the music in some way: volume and sustain pedals, pitch and modulation wheels, and breath controllers are some examples. You can record any of this data when you use the Transcription Tool to transcribe your music (see "Controllers [MIDI controllers]").

THE TRANSCRIPTION WINDOW

Time Tag display area

Keyboard display area

These buttons govern the recording and playback of notes (displayed in the Keyboard display area).

These buttons govern the recording and playback of Time Tags (displayed in the Time Tag display area).

These buttons tell Finale to begin recording (or playing, depending on the Keyboard and Time Tag buttons you've selected). Click start to begin recording or playback immediately. Click Wait Till to put Finale in "pause" mode.

These options let you retain the original "feel" of your performance for playback later, even after the performance has been transcribed.

These real-time counters are used for "punching in."

TO RECORD A PERFORMANCE

- Create an empty score, establish the meter, key signature, and configuration of staves. You can transcribe onto one or two staves at a time.

- Click the Transcription Tool ▥ , and click the measure at which the transcription will begin. You enter the Transcription window.

- Click Wait Till. Finale is in "pause" mode. The recording begins with the first note you play (or any other MIDI signal—be careful not to use the sustain pedal until you're ready to record).

- Play your piece. Click anywhere (except on a button) to stop recording. When you stop recording, you'll see your music expressed as a sort of horizontal bar graph. The length of the bars indicate the notes' durations, and their relationship to the piano keyboard (left side of the screen) indicates their pitch.

- Save your performance by choosing Save As from the File menu, if you want to preserve it as a note file. As far as Finale is concerned, the Transcription window is a *different program*. The File menu's commands (New, Open, Save As) no longer refer to the Finale notation file you have open. They refer instead to the performance, or *note file*, you just recorded. If you choose New from the File menu, you're specifying a new *note file*. You're not closing whatever Finale notation file you have open.

  Note files must be saved with the file extension ".NOT" so that Finale recognizes them as such. You can open these files any time you're in the Transcription window. You can, for example, record a piece today, save it, and transcribe it tomorrow.

- To play your performance back, choose Select All from the Edit menu. The display area is highlighted.

- Under the word Keyboard, click Play, then click Start. Finale plays back your performance.

TO TRANSCRIBE A PERFORMANCE

- Record the music. See "To record a performance," above.

- Choose Select All from the Edit menu. The display area is highlighted. You're about to tap along with your music as it plays back, providing Finale with a tempo point of reference. These taps are called *Time Tags*.

- Choose a rhythmic value for your taps by choosing one from the Time Tag menu (in the "First Tag is" section). If you plan to tap even rhythmic values (all quarter notes, for example) choose Record Equal Durations from the Time Tag menu. (If you don't select Record Equal Durations, you can actually vary the rhythmic value of your tap—sometimes eighths, sometimes quarters—and Finale will attempt, by interpolating and extrapolating, to assign the Time Tags correctly.)

- Under the word Keyboard, click Play. There are two distinct layers of MIDI information in the Transcription mode: the Keyboard layer, which records every aspect of your synthesizer performance, and the Time Tag layer, which records only your beat taps. You want the Keyboard layer to *play* while you *record* the Time Tags.

- Under the words Time Tag, click Record. If you're about to generate Time Tag taps on any channel other than MIDI channel 1, choose Click Input from the Time Tag menu. Click Listen to MIDI, and play the note (or MIDI controller) you'll be tapping. Click OK.

- Click the Wait Till button. Finale goes into pause mode, where it will remain until you touch a key or pedal on the synthesizer.

- Tap any key in time to the music. Click anywhere (except on a button) to stop recording. If you need to start over, choose Select All from the Edit menu and repeat the last four steps.

  When the music ends, Finale automatically stops recording, and you should see small note symbols (Time Tags) across the top of the screen.

- Choose Align Tags to Notes from the Time Tag menu. This command "quantizes" your *taps* to the nearest *notes*.

  A small dialog box appears, asking you to specify the *search width*. This number, in thousandths of a second, tells Finale how far from each tag it may "search" for a note with which to align it. If the performance was slow, you can increase this number. If it was very fast and "notey," you may want to use a smaller number so that a Time Tag is not inadvertently assigned to the note *after* the one you intended.

  In most cases, however, you can simply keep the default search width setting (200 thousandths of a second).

- Click OK.

- Choose Assign Measure Tags from the Time Tag menu. Finale automatically puts a letter M at the beginning of every measure, according to the time signature (or time signatures) you've already established in the score.

  If your piece has several different time signatures but you haven't already established them in the score, choose Measure from the Time tag menu and repeat the tapping process, but this time tap at each *downbeat*. When you're finished, choose Convert to Time Sigs from the Time Tag menu. This will automatically create time signature changes in the correct measures in your *score*.

- If you're transcribing onto two staves, choose a split option (Split Point or Hand Width) from the Transcribe menu. If you choose By Split Point, a box appears. Enter a synthesizer key number at which to split the performance into two staves. (Click Listen to MIDI, if you prefer, and *play* the key.)

  If you choose By Hand Width, a dialog box appears in which you can enter or, by clicking Listen to MIDI, *play* the largest hand span that occurs in your performance (in half steps). This doesn't necessarily mean the widest interval you can play with one hand. It means the widest interval you played *in the piece*. When transcribing, Finale will attempt to split your two-handed performance onto the correct treble- and bass-clef staves by *tracking the positions of your hands* as they move up and down the keyboard. As long as there's a discernible gap between your two hands during the performance, Finale can track a changing split point automatically.

  Click OK to exit either dialog box.

- Specify a quantization value from the Transcribe menu. Choose the smallest *predominant* note value in the piece. If there are occasional smaller values (for example, if there are triplets or sixteenth notes in a piece where the predominant note value is the eighth note), you might opt for Floating Quantization instead of choosing a static quantization level.

- If necessary, choose Floating from the Transcribe menu. A dialog box appears, listing three Floating Quantization options. The first, Timed Non-Tuplet, tells Finale to watch out for *non-tuplet* subdivisions of the "main" quantization value. If you're quantizing to eighth notes, for example, Timed Non-Tuplet will correctly notate the occasional sixteenth notes. The bottom choice, Non-Timed Tuplet, tells Finale to assume that any values smaller than the quantization value are tuplets, no matter how unevenly they were played. The middle setting, Timed Tuplet, distinguishes between tuplet and non-tuplet rhythms, based on the timing of the notes within the beat.

  For a more complete discussion of Floating Quantization, see Tutorial 5 of *Learning Finale*. For details on the remaining elements of the Floating Quantization dialog box, see "Floating Quantization dialog box" in *Finale Reference*.

- Choose Expand Minimums from the Transcribe menu. If you don't choose Expand Minimums, any note whose duration is less than the specified quantization value will be transcribed as a grace note.

- Choose No Voice Two, if appropriate. If there's an inner voice in the music you're transcribing, leave this option unchecked. Finale will accurately transcribe your performance into two independent voices, one stems-up and one stems-down.

If there are few places where you'll be needing an inner voice, however, choose No Voice Two (so that a check mark appears). This way, Finale won't create secondary voices where you *didn't* intend them—for example, where you accidentally overlapped two successive notes in a melody. The status of this option can have a dramatic effect on the "cleanness" of your transcriptions.

* If you like, click Capture Performance, Capture MIDI Xpression, and Capture Time Dilation. (When you click Capture Time Dilation, a dialog box appears. Click Absolute.) These options tell Finale to remember the precise feel of your original performance, and to keep this data handy for playback once you return to the score. Capture Performance tells Finale to retain key velocity and Start and Stop Time data (see "Start and Stop Times"). MIDI Xpressions are controller data (aftertouch, pedal, pitch bend, and so on). And Time Dilation refers to your tempo fluctuations, including ritards and accelerandi. If you don't choose these options, then when you play back the transcribed music from the score, Finale will simply play back the *sheet music*—mechanically reproducing the notes, but without expression or feeling—instead of an exact recreation of your original performance.

* Click the Transcribe button. If the results aren't perfect, remember that your performance is still intact, in the Transcription window. Click the first measure of the transcribed notation to switch back into the Transcription mode, where you can correct any split point or quantization settings, then click Transcribe again.

  If you still don't get good results and you can't figure out what's wrong, read the section called "Real-Time Transcription Settings Guide" in Appendix 3 in *Finale Reference*. If you discover occasional split point errors in the transcription (where a right-hand note was notated on the left-hand staff, for example), you can either change the split point settings in the Transcription window and try again, or you can simply go to the score and fix the wrong notes manually. See "Real-time transcription (HyperScribe)—To correct split point errors."

To Edit Time Tags

There may be instances when you need to change the durational value of a Time Tag, or move the Time Tag so that it aligns with a note, or to add or remove a Time Tag completely. The following instructions assume you've already recorded a performance and entered Time Tags, as described in "To record a performance" and "To transcribe a performance," above. They also assume that you're still in the Transcription window.

* Click the *words* Time Tag. The words become highlighted. You've just indicated that you'll be editing Time Tags only. For better control, you can "zoom in" by choosing Set View Resolution from the Transcribe menu. In the box that appears, enter a *smaller* value to enlarge the display—50, for example. Click OK.

* To insert a new Time Tag, double-click in the Time Tag display area. The Time Tag display area is the top strip of the display window, where the Time Tags are (in a line with the small metronome icon). When you double-click, a new tag appears, whose duration is determined by the "First tag is" setting in the Time Tag menu.

* To move a Time Tag, drag its notehead. If you select a group of tags (by dragging through them or by choosing Select All from the Edit menu), you can drag any one notehead to move them all.

* To change the duration of a Time Tag, double-click its notehead. On the second click, hold the button down. Drag it to the left or right. As you drag, the Time Tag cycles through the following durational values: sixteenth notes, eighth notes, quarter notes, and half notes. Drag to the right for larger values, to the left for smaller values. By selecting a range of tags (by either dragging or by choosing Select All from the Edit menu), you can use this technique to effectively *renotate* an entire piece at once. You could change a 4/4 piece to cut time, for example, by changing quarter note Time Tags to eighth note Time Tags. You're effectively telling Finale that every quarter note is now an eighth note. (If you try this, don't forget to choose Assign Measure Tags again from the Time Tag menu before clicking Transcribe.)

To EDIT KEYBOARD NOTES

While it's much easier to edit your performance once it's been transcribed into standard notation, you can edit notes directly in the Transcription window.

- Click the *word* Keyboard. The word becomes highlighted. You've just indicated that you'll be editing notes only. For better control, you can "zoom in" by choosing Set View Resolution from the Transcribe menu. In the box that appears, enter a *smaller* value to enlarge the display—50, for example. Click OK.

- To delete notes, drag through them and press Delete.

- To insert a new note, double-click in the Keyboard area. The Keyboard area is the bottom three-quarters of the display window, where the other notes are. When you double-click, a new note appears, whose pitch is determined by the location of your click. Use the piano keyboard at the left side of the screen as a guide. The note's initial duration is 15 *units*. The value of a unit is determined by the number in the Set View Resolution box. In other words, if the View Resolution (the unit) is 100 (in thousandths of a second), the note produced by a double-click is 1500 thousandths of a second long—which is 1.5 seconds. If you hold the mouse button down on your second click, you can drag *forward* (to the right) to increase the duration of the note.

- To move the attack (or release) of the note, carefully double-click the line. On the second click, keep the mouse button down and drag the first (or second) half of the line right or left.

To ADD TRACKS

In a sequencer program, you can record a new "track" while listening to a previously recorded "track." Using the Playback and Transcription Tools, you can accomplish the same effect in Finale.

- Record the first track. Transcribe it in the usual way. See "To record a performance" and "To transcribe a performance," above. Be sure to choose Capture Time Dilation, Capture MIDI Xpression, and Capture Performance while you're in the Transcription Tool.

- Click the Playback Tool ⑨ . The Playback menu appears. If you chose Capture Time Dilation, Capture MIDI Xpression, and Capture Performance while you were in the Transcription Tool, you can now instruct Finale to play the music back with your original "feel," including tempo fluctuations and pedaling.

- Choose Playback Options from the Playback menu, and make sure Use Captured Performance, Use Captured MIDI Expression, and Auto Start Time Dilation are selected. Click OK. At this point, it's a good idea to listen to your score to make sure the tempo and MIDI channels are set correctly. You can't change any aspects of this "already-recorded track" beyond this point.

- Choose Playback Settings from the Playback menu. The Playback Settings dialog box appears.

- Click Create a Playback File, then click OK. A Playback file is an audio version of the current score (not the same thing as a Note File, which can only be created from within the Transcription Tool).

  If you only want to record a new track over *part* of your score, choose Playback Range from the Playback menu and specify the range of measures you want included in the Playback File.

- Click the first measure you want included in the Playback File. Finale computes for a moment, and then asks you to name this file.

- Enter a name for the playback file and be sure to include the file extension ".PLY", then click Save.

- Click the Transcription Tool, then click the target measure for the transcription of the next track. You enter the Transcription window. The Background File check box now

has an X in it. Finale has automatically "loaded" your playback file into the "background," so you'll hear it playing when you record your new track. (If you *don't* want to hear the old track playing back, click Background File and click Cancel.)

- Choose New from the File menu. Any music left in the window is now cleared.
- Click Start or Wait Till. Now play your *second* track. Click anywhere (except on a button) to stop recording. Finale plays your Background File as you record the new track. If you haven't clicked the mouse, Finale automatically stops recording when the Background File ends.
- Choose Select All from the Edit menu.
- Choose Tags From Background File from the Time Tag menu. Finale assigns Time Tags to the new track based on their positions in the Background File (your original track), saving you the trouble of having to record them again.
- Choose Align Tags to Notes from the Time Tag menu.* Click OK. This command "quantizes" your *taps* to the nearest *notes*.

  A small dialog box appears, asking you to specify the *search width*. This number tells Finale how far from each tag it may "search" for a note with which to align it, in thousandths of a second. If the performance was slow, you can increase this number. If it was fast and "notey," you may want to use a smaller number so that a Time Tag is not inadvertently assigned to the note *after* the one you intended.

  In most cases you can simply keep the default search width setting (200 thousandths of a second).

- Click OK.
- Choose Assign Measure Tags from the Time Tag menu.
- From the Transcribe menu, choose your quantization value, split point, and other transcription options. For a complete discussion of these options, see "To transcribe a performance," above.
- Click the Transcribe button. You can repeat this process as many times as you like, building staff after staff, track after track. Just create a Playback File of each transcribed track before proceeding to the next. (You don't have to include *all* existing staves in each Playback File. See "Hiding staves" and "Playback" for instructions on hiding nonessential staves and telling Finale not to play them back.)

Real-time transcription (HyperScribe)

When you play music into HyperScribe, it's transformed instantly into standard notation. If you choose the appropriate transcription options for the music you intend to play, you can get very accurate results.

To transcribe your performance, Finale needs to know where the *beats* fall relative to the notes you play. You can tap a key (or, if both hands are occupied with playing, you can tap your foot on a pedal) in time with your performance to provide this tempo reference. This gives you the freedom to speed up or slow down as you go. Or you can let Finale provide a steady click for you (using a feature called HyperClick).

To create real-time transcriptions

- Click the HyperScribe Tool ▣ . The HyperScribe menu appears. If you prefer to let Finale provide your click track, make the following detour. Choose HyperClick from the HyperScribe menu. The HyperClick dialog box appears. Enter the desired tempo in the Tempo box, or click Listen and tap a key several times in tempo. Finale displays the average tempo. The trigger (the MIDI signal that starts the click track) is the sustain pedal, unless you click the Listen box and play a note or some other controller (a wheel

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* This step is important only if your highest priority is the most accurate possible *notation* of your performance. If you prefer the most accurate *playback* when you return to the score (after having "captured" performance data), skip this step.

or pedal). Specify the click sound by clicking the Click Output Listen box and playing the appropriate note. Enter a MIDI channel number, if necessary. Click OK.

- Choose Tap Duration from the HyperScribe menu. The Tap Duration dialog box appears.

- Click the appropriate tap duration button (X/4, X/8, and so on). These four buttons—X/4, X/8, (3)X/4, and (3)X/8—let you set the most common tap and quantization values with one click. If you'll be tapping your foot (or a key) in quarter notes (for meters such as 2/4 or 4/4), click the X/4 button. If you'll be tapping eighth notes, click X/8. For waltzes and other meters based on a dotted-half-note pulse, click (3)X/4, which means you'll be tapping your foot every dotted half note. Finally, click (3)X/8 if you plan to tap your foot every dotted quarter note (as in a 6/8 march).

Some examples of time signatures in which each of these buttons might be appropriate are listed here:

Button	Sample meters	Tap value	Quantization
X/4	2/4, 3/4, 4/4	Quarter note	Eighth note
X/8	2/8, 3/8, 5/8	Eighth note	Sixteenth note
(3)X/4	3/4 waltz	Dotted half	Quarter note
(3)X/8	3/8, 6/8, 9/8, 12/8	Dotted quarter	Eighth note

When you click one of these "quick set-up" buttons, Finale fills in both the Tap Duration and Division boxes (see the next step).

If none of these common rhythms is what you need, click *Duration*. In the palette that appears, specify the tap duration by clicking the appropriate note value (and the dot, if necessary). Click OK. No matter how you specify the tap duration, the number that appears in the Tap Duration box is expressed in Finale's rhythmic units, EDUs, of which there are 1024 per quarter note.

- Change the value in the Division text box, if you like. The Division number represents the *quantization level* of Finale's transcription. Divide the tap duration by the Division number to specify the quantization value. If the tap duration is a quarter note (1024 EDUs) and you enter 2 as the Division number, the quantization value will be an eighth note.

If you clicked one of the duration buttons (X/4, and so on), the Division box automatically proposed a quantization value (see the table above). If you anticipate exceptions to this quantization value—for example, an occasional triplet or sixteenth note—go to the next step.

- If necessary, click Float Quantizing. A dialog box appears, listing three Floating Quantization options. The first, Timed Non-Tuplet, tells Finale to watch out for *non-tuplet* subdivisions of the quantization (Division) value. If you're quantizing to eighth notes, Timed Non-Tuplet will correctly notate the occasional sixteenth notes.

The bottom choice, Non-Timed Tuplet, tells Finale to assume that any values smaller than the quantization value are tuplets, no matter how unevenly they are played. (In the Highest Tuplet text box, specify the largest tuplet value you anticipate—5 for quintuplets, 3 for triplets, and so on. See also "Quintuplets.")

The middle setting, Timed Tuplet, distinguishes between tuplet and non-tuplet rhythms, based on the timing of the notes within the beat. When you've specified the Floating Quantization option, click Float.

(For a more complete discussion of Floating Quantization, see Tutorial 5 in *Learning Finale*. For details on the remaining elements of the Floating Quantization dialog box, see "Floating Quantization dialog box" in *Finale Reference*. For a complete guide to Floating Quantization options, consult Appendix 3 of *Finale Reference*.)

- Click OK. Finale assumes you'll be generating the taps with the sustain pedal. If you're going to be tapping on a key—or any other MIDI controller—choose MIDI Input from the HyperScribe menu, click Listen to MIDI, then tap the key (or controller). Click OK.

- If you're transcribing onto two staves, choose Split Point from the HyperScribe menu. Click Listen to MIDI, play the split point key, and click OK. HyperScribe will transcribe this note and any notes you play above it onto the upper staff, and any notes below it onto the lower staff.

- Unless you plan to play inner voices, choose No Voice Two from the HyperScribe menu. HyperScribe will transcribe a second voice on each staff, resulting in some notes stems-up and some stems-down, unless you specify No Voice Two. Don't use this option unless you can play very carefully—otherwise, you may get an inadvertent stem-down second voice every time you release a key slightly late (and thus overlap it with the next note in the piece).

- Click the first measure (of the upper staff, if there are two). A pair of square boxes (*buffer boxes*) appears. A black dot appears in the left box each time you send a tap signal (by tapping your foot, for example) and in the right box each time you play a key. If either box ever becomes completely filled with dots, you're playing too many notes too quickly for the computer to process. Slow down and wait for the buffers to empty somewhat before continuing.

- Play your piece, giving the sustain pedal (or the key you specified) a tap on every beat. When you're finished, play (and tap) one an extra measure of music. The extra measure of music is required to "flush out" the buffer boxes.

- Click anywhere on the screen to exit the buffer boxes. If the quantization or split point settings weren't quite right, change them. Then click the first measure and try the performance again. HyperScribe will overwrite whatever music is already on the staff. If you can't seem to find a split point that works to separate the music into the proper staves, use the Note Mover to correct any split point errors (see "To correct split point errors," below).

TO CORRECT SPLIT POINT ERRORS

Occasionally, because there is no clear split point, or because your hands cross, a HyperScribe or Transcription Tool transcription will contain left-hand notes in the treble-clef staff, or right-hand notes in the bass-clef staff. Using the Note Mover, you can quickly restore the notes to the proper staves.

- Click the Note Mover Tool 🔳 . The Note Mover menu appears.

- Choose Delete After Merge from the Note Mover menu. In other words, you'll *delete* the incorrectly split note from its current staff, and *merge* it with the correct staff.

- Click the measure containing the incorrectly split notes. A handle appears on each notehead.

- Select the notes to be moved. Select one note by clicking its handle, several adjacent notes by drag-enclosing them, or additional notes by Shift-clicking (or Shift–drag-enclosing them). The handles you selected are highlighted.

- Drag any highlighted handle onto the target staff. Don't drag it to any particular line or space. Just drag it anywhere onto the correct staff. The notes are automatically transferred to the correct lines or spaces of the new staff.

Rebarring music You can rebar existing music in two ways. If you've recorded a performance in the Transcription Tool, you can halve or double all the Time Tags at once, in effect rebarring the music. For instructions, see "Real-time recording (Transcription Tool)—To edit Time Tags."

If the music has already been notated, you can only rebar from a larger (longer) meter to a smaller (shorter) one (from 4/4 to 6/8, for example, but not from 2/4 to 3/4).

TO REBAR MUSIC TO A SMALLER METER

- Click the Time Signature Tool ⊞. A handle appears on each barline.
- Click the handle of the barline where you want the meter to change. The Time Signature dialog box appears.
- Click the Increase/Decrease buttons for the numerator and denominator to set the new (smaller) meter, and click OK. A box appears, letting you specify the range of measures to be affected by the meter change. Bear in mind that the effect of this rebarring process will be to "push" the extra notes out of each measure into the next, so you'll end up with *more* resultant smaller-meter measures than you have now.
- Specify the range of measures to be affected. When you return to the score, each measure will now have too many beats. The extra beats may appear to protrude into the following measure, but no harm is done.
- Click the Speedy Note Entry Tool ⊡, and click the first measure containing the new time signature. The editing frame appears. In essence, you simply want to enter, then immediately exit this frame, so that Finale will offer you the rebarring option.
- Press zero (0) to exit the editing frame. A dialog box appears, letting you know that there are too many beats in the measure. The fourth option, "Clip the entries off, insert them in the next measure and continue..." is the option you want.
- Click the fourth option. Finale renotates the music from this measure to the end of the staff according to the new meter. Repeat this process (click a measure, press 0, click the fourth option) for each staff.

Rebeaming See "Beaming—To rebeam a selected region."

Redraw
In order to speed up your work with Finale, you may want to limit the number of times Finale redraws the screen picture—a process that requires the computer to do time-consuming calculations, particularly with large scores. See "Speed Tips" in *Learning Finale* for other speed-enhancing techniques.

TO MINIMIZE COMPLETE SCREEN REDRAWS (SCROLL VIEW ONLY)

- Choose Redraw on Command from the View menu. When this option is selected, Finale won't redraw the screen until you scroll, change views, or choose Redraw Screen (CTRL-D) from the View menu. At times, this may result in some blank areas on the screen, but as long as you can see the area you're working on, you'll probably save time in the long run.

TO MOVE AROUND THE SCORE WITH MINIMAL SCREEN REDRAWS

Normally, when you use a scroll bar in Finale, the screen instantly redraws to reflect your new position in the score. There may be times when you need to move *both* scroll bars—for example, if you want to move diagonally across the score. (You can use this technique in Page View with *all three* scroll bars, including the one at the bottom-left edge of the screen that moves you from page to page.)

- Press CTRL while dragging the white box in a scroll bar. The screen goes completely blank. You can continue to adjust either scroll bar. As long as you're pressing CTRL, Finale won't redraw the screen at all.
- Use the other scroll bar normally. The screen redraws, taking into account the movements of both scroll bars.

For information on *speeding up* screen redraw time, see the sections called "Speed Tips" in *Learning Finale*. Read, in particular, about the advantages of the Items to Draw command.

Reducing/Enlarging

You can enlarge or reduce almost any element of your music: a notehead, an entire note, a staff, a system, or a page. Bear in mind that reduced-sized music may look slightly ragged when printed on a non-PostScript printer. PostScript printers will produce uniform, smooth output at any size. The limits of the Reduce/Enlarge Tool are 10% to 1000%.

TO REDUCE OR ENLARGE INDIVIDUAL NOTES

- Click the Reduce/Enlarge Tool ⬛. To reduce or enlarge only a *notehead* but not the note's stem, flag, or other notes in the chord, click the notehead. Skip the next step.
- Click the target note's stem (not its notehead). If you're resizing several notes that are beamed together, click the stem of the *first* note of the beamed group. The Percentage Reduction/Enlargement dialog box appears.
- Enter the desired reduction or enlargement percentage. Click OK. In clicking a note's stem, you're telling Finale to shrink the entire *entry*—note, stem, flag, any other notes in the chord, and any other notes beamed to this one. To restore a note to its original size, click the Reduce/Enlarge Tool, then click the notehead or stem (whichever part you originally modified). When the dialog box appears, click Delete.

TO RESTORE A REGION OF NOTES TO FULL SIZE

- Click the Mass Mover Tool ⬛. The Mass Mover menu appears.
- Select the measures containing the notes you've resized. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or choose Select All from the Edit menu to select the entire file. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling.
- Choose Erase from the Mass Edit menu. Proceeding through the dialog boxes, click as follows: Only the Selected Items, Entries, Only the Selected Items, Note Head or Percentage Alterations.
- Click OK twice. To copy note reductions or enlargements to other measures, see "Cue notes—To copy cue note reductions to other measures."

TO REDUCE OR ENLARGE A STAFF OR SYSTEM

You must be in Page View to reduce or enlarge a staff or system.

- Click the Reduce/Enlarge Tool ⬛.
- Click to the left of a staff (to resize the staff), or to the left of and *between* any two staves (to resize the system). The dialog box appears, this time asking you how you want to resize the staff or system. If you're reducing or enlarging a system, you see two new options. Click Hold Margins if you intend to reduce the music itself but *not* the system margins, thus increasing the number of measures that fit on the line. Click Close up Space if, in reducing a system, you want less space between this system and the next, proportional to the reduction.
- Enter the desired reduction or enlargement percentage and click OK. Another dialog box appears, allowing you to specify the region of systems to be affected by this change.
- Specify the range of systems you want to affect. If you reduce or enlarge a system with Hold Margins selected, the measure widths will appear to be uneven.
- Choose Recalc Music from the Edit menu. To restore a staff or system to its original size, click to the left of the staff or system with the Reduce/Enlarge Tool. When the dialog box appears, click Delete.

TO REDUCE OR ENLARGE ALL THE MUSIC ON A PAGE (OR THE ENTIRE PIECE)

Use this technique for reducing or enlarging the printed size of the music itself (without changing the actual page size). You must be in Page View to reduce or enlarge a page.

- Click the Reduce/Enlarge Tool ▣ .
- Click the upper-left corner of the first page you want resized. You can press CTRL-Z to go directly to the upper-left corner of the music page. The Percentage Reduction/Enlargement dialog box appears again.
- Enter the reduction or enlargement percentage. Click Hold Margins too, unless you want the *entire printed page* to shrink (or grow) proportionally.
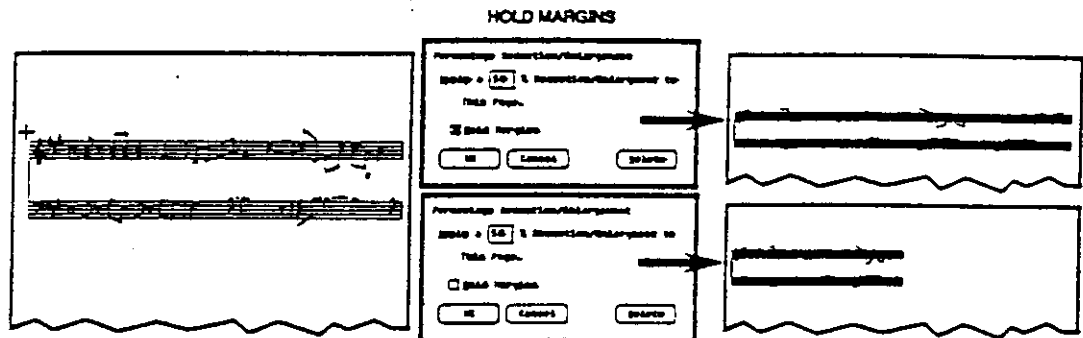
After clicking the upper-left corner of the page to reduce the music (left), click Hold Margins if you want the systems on the page to maintain their margin-to-margin width (upper right). Otherwise, Finale reduces the music proportionally in both dimensions (bottom right).

- Click OK. You're then asked what range of pages you want to affect.
- Specify the pages you want affected. As always, whenever you perform an operation that changes the measure widths, *recalculate the music.*
- Choose Recalc Music from the Edit menu. If you've just reduced the music, you've probably decreased the number of pages. Unless you follow the next step, the printer will "print" the leftover blank pages still attached at the end of the piece.
- Click the Page Add/Remove Tool ▣ . A dialog box appears.
- Click Delete. Any blank pages are removed. If the music expands again later, Finale will automatically add pages as needed to compensate. You can *never* lose music with any of Finale's reformatting tools.

Rehearsal letters
A rehearsal letter (or number, or other mark) is a form of Score Expression which appears at the same location in more than one staff. Because it's a Score Expression, you can specify one set of staves to display the mark in the full score, and a different set to receive the mark when the parts are extracted.

If you want your rehearsal marks to be based on their measure numbers, see "Measure numbers" for an alternate method of creating rehearsal numbers.

TO CREATE A REHEARSAL LETTER

- Click the Score Expression Tool ▣ .
- Click on or above the measure at which the letter is to appear. The Score Expression Selection box appears. If you see the letter in the scrolling list, double-click it and skip to the instruction marked by the coda sign.
- Click Create. The Text Expression Designer appears.
- Type the letter (or number). Click Set Font to change the type style.
- If you like, click Enclose Expression. The Enclosure Designer appears. Choose the shape you prefer from the list of geometric enclosures. Drag the top handle to make the enclosure taller or shorter, the right-side handle to make the whole enclosure bigger or smaller, and the middle handle to position the enclosure around the letter. You can also change the line thickness which is measured in points (72 per inch). The second text box holds a decimal place. Click Use Enclosure to exit the Enclosure Designer.

- Click OK twice. You arrive at the Expression Assignment dialog box.
- If you want to display the letter only in certain staves, click *Staff List*. A table appears, listing your staves on the left. Click in the Score column across from each staff you want to display the letter in the *full score*, and click in the Part column across from each staff you want to display the letter in the *extracted part*. (An X appears in the column when you click.) Set all staves at once by clicking the *word* Score or Part, then click Set (to select all staves) or Clear (to remove check marks from all staves).
- Click OK to exit the dialog box. Finale places a number in the *Staff List* box. This number corresponds to the staff configuration you just created. The *next* time you place a rehearsal letter in the score, you won't have to click *Staff List* and rebuild the list. Just type the Staff List configuration's number into the box.

  At this point, you may also want to click Individual Positioning if you want the letter to be independently movable in every staff.

- Click OK.

TO MOVE OR DELETE A REHEARSAL LETTER

- Click the Score Expression Tool, then click the measure to which the letter was attached. Its handle appears.
- Drag the handle to move the letter. Select it and press Delete to remove it. If you want to edit the letter's Staff List, Shift–double-click the handle.

TO BREAK MULTIMEASURE RESTS AT REHEARSAL LETTERS

When you extract an instrument's part, Finale doesn't normally break multimeasure (block) rests at a barline where a Score Expression has been inserted, unless the barline is a double bar or a "light line."

- Click the Measure Attributes Tool 圖. A handle appears on each barline.
- Double-click the handle of the barline at which you want the multimeasure rest to be broken. The Measure Attributes box appears.
- Click the Double Bar option. Or, if you want a normal barline at the rehearsal mark's location, choose Light Line instead.
- Click OK.

Rehearsal marks See "Rehearsal letters."

Rehearsal piano parts See "Piano reductions."

Releases See "Expressions: Note Expressions," "Real-time recording (Transcription Tool)—To edit keyboard notes," "Rolled chords," "Start and Stop Times."

Repeat measure symbols See "Measure repeat signs."

Repeats (barlines and text indications) Repeat barlines in Finale may be either purely graphic, or fully functional for playback. For a full tutorial in the use of the Repeat Tool, see Tutorial 3 in *Learning Finale*. See also "First endings" and "Second endings" in this volume.

Repeats can be nested (endings within endings) or infinite. They can also be *text repeats*—instead of a repeat barline, you can create an expression such as D.S. al Coda, which will actually affect playback. See "Coda," "D.S., D.S. al Coda," and "D.C."

To create a repeat

- Click the Repeat Tool ▣ , then click the measure to contain the repeat. The Repeat Selection window appears. (If you wish to create a text repeat [To Coda, for example], click Create. Type the expression, set the font, click OK, then Select. Skip the next step.) If you want to create a repeat *barline*, you'll note that there are four kinds of repeat barlines at the top of the window.
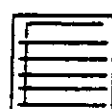

| Forward Repeat (Graphic only) | Backward Repeat (Graphic and playback) | Backward Repeat with Bracket (Graphic and playback) | Multiple Ending Repeat (Graphic and playback) |

The third and fourth repeat barlines each include a resizable, draggable bracket. If you're planning to use the playback function of any of these barlines, bear in mind that only the Multiple Ending Repeat (on the right) causes playback to jump (to another spot in the score) at the *beginning* of the measure to which it's assigned. The second and third barline types direct music to the target measure only when the music has played through to the *end* of the measure.

- Double-click the desired repeat barline icon. If you're placing the Forward Repeat barline (the left icon which is purely graphic), it now appears in the score, and your task is complete. If you selected one of the other three icons, another dialog box appears, asking for details about the playback definition of this repeat barline. If you don't intend to use this barline's playback function, click OK.

- Enter the target measure number in the Target Measure box. The Target Measure is the next measure played after the repeat-barline measure—in other words, it's the measure Finale should jump back to. (The Target Measure doesn't have to be an *earlier* measure.)

- Specify the desired Repeat Action. This option, available only for text repeats and the Backward Repeat barline icons, tells Finale what to do when it has played the measure the number of times specified in the Total Passes box . Always Jump ignores the Total Passes completely, and jumps to the Target Measure every time. Jump on Total Passes *never* executes the repeat except on the "pass" you specify. (Jump on Total Passes is ideal for a *Last time to Coda* marking.) Repeat until Total Passes is just the opposite—it executes the repeat *every* time the repeat barline is encountered, until the measure has been played the number of times specified in the Total Passes box. (Repeat until Total Passes is appropriate for standard repeats, such as first endings.)

- In the Total Passes box, specify the number of times the playback should reach the repeat barline (how high Finale should "count") before performing the Repeat Action you've specified (see above). For the barline at the beginning of a *first ending*, the number of total passes is 1. For the barline at the *end* of a first-and-second ending, the number of total passes is 2. (If you selected the Multiple Ending Repeat barline [the rightmost icon], it's easy to calculate the Total Passes: it's the same number displayed under the bracket, which you typed into the Ending Text box. If, for example, it's a first ending, the Total Passes is 1. If it's a first, third, and fifth ending, click Multiple and type 1, 3, and 5 into the boxes.)

- Click Individual Positioning, if desired. If you've selected a text repeat or a repeat barline with a bracket attached, Finale usually places the repeat in the same position in every staff. This option allows the text repeat or the bracket to be moved or resized independently. Furthermore, be sure to select Individual Positioning if you'll want to extend the bracket on a repeat barline longer than one measure or so—for example, if your first ending is four measures long. (If you don't, Finale limits a repeat bracket to the length of a measure.)

TO ADJUST THE BRACKETS ON, OR DELETE, A REPEAT BARLINE

- Click the Repeat Tool 🗐, then click the measure with the repeat. Three handles appear on the bracket. If you're adjusting a text repeat, a single handle appears.
- To stretch a bracket, drag its upper handles vertically or horizontally. To delete a repeat (barline or text), click the bottom handle and press Delete. Unless you've selected Individual Positioning (see above), you can't stretch a bracket much farther than the length of one measure. You can, however, make brackets appear to be longer by combining two repeat barlines, and aligning their brackets until they overlap (the Backward Repeat with Bracket and the Multiple Ending Repeat, for example). See "First endings."

TO CHANGE A REPEAT BARLINE'S PLAYBACK DEFINITION

- Click the Repeat Tool 🗐, then click the measure with the repeat. Handles appear at the ends of the bracket and the barline.
- Shift–double-click any handle. The Bar Assignment (playback definition) box reappears. Make the desired changes, then click OK. (See "To create a repeat," above, for the playback options you can specify.)

TO BREAK A REPEAT BARLINE THAT CONNECTS STAVES

When you create a repeat barline, it's ordinarily drawn as a solid line across the space between any *grouped* staves (those connected by a bracket, for example). If you prefer, you can instruct Finale not to draw the barline continuously through the space between staves.

- Click the Staff Attributes Tool 🖼. A handle appears on each staff.
- Click the handle on the staff just *below* the space where you want the barline omitted. The Staff Attributes dialog box appears.
- Click Break Repeat Bars. Click OK.

TO HIDE THE ENDING BRACKETS AND TEXT REPEATS FOR A SPECIFIED STAFF

If your score includes a piano part (for example), you normally won't want ending brackets (such as a first ending bracket) to appear above both the treble and bass staves. Similarly, you would probably want a Text Repeat (such as "To Coda") only to appear above the treble staff, not above both.

- Click the Staff Attributes Tool 🖼. A handle appears on each staff.
- Click the handle of the staff for which you want to hide the brackets or Text Repeats. The Staff Attributes window appears.
- In the Don't Draw section, click Endings and Text Repeats. Click OK.

Rests (Simple Note Entry)

You can edit, create, and move rests by using either the Simple Note Entry or Speedy Note Entry tools. If you do most of your editing with the Speedy Note Entry Tool, see "Rests (Speedy Note Entry)." (Rests appear automatically when you transcribe a real-time performance.) You can change any existing note into a rest, or change the duration of any rest. See also "Multimeasure rests," "Step-time music input," and "Whole rests."

If the rests you want to edit are in both Voice 1 and Voice 2, you'll have better luck working with the Speedy Note Entry Tool. See "Rests (Speedy Note Entry)."

TO MOVE A REST VERTICALLY

- Click the Simple Note Entry Tool 🔲. The Simple Note palette appears.
- Click the icon representing the desired rest's duration.
- While pressing Shift, click the place on the staff to which you want to move the rest. The rest jumps to the position you clicked.

To add a rest

- Click the Simple Note Entry Tool ◻. The Simple Note palette appears.
- Click the icon representing the desired rest's duration.
- While pressing Shift, click the place where you want the rest to appear. The rest appears at the horizontal position of your click. Its vertical position is always the center staff line, unless you're working in layers and have specified a rest position offset. (See "Multiple Voices" for a more complete discussion of setting rest position offsets.) See also "To move a rest vertically," on the previous page.

To change a rest's duration

- Click the Simple Note Entry Tool ◻. The Simple Note palette appears.
- Click the icon representing the desired new duration.
- Shift-click the rest. It changes to the new duration.

To change a rest to a note

- Click the Simple Note Entry Tool ◻. The Simple Note palette appears.
- Click the icon representing the desired note's duration.
- Click the rest at the desired pitch. The rest changes to a note, of the duration and pitch you clicked.

To change a note to a rest

- Click the Simple Note Entry Tool ◻. The Simple Note palette appears.
- Click the icon representing the desired rest's duration.
- Shift-click the note. It turns into a rest of the duration you specified.

  If the note is a single note (not a chord), you can take a shortcut: click the Eraser ◻, then click the notehead.

Rests (Speedy Note Entry)

You can edit, create, and move rests by using either the Simple Note Entry or Speedy Note Entry tools. If you do most of your editing with the Simple Note Entry Tool, see "Rests (Simple Note Entry)." (Rests appear automatically when you transcribe a real-time performance.) You can change any existing note into a rest, or change the duration of any rest. See also "Multimeasure rests," "Step-time music input," and "Whole rests."

To move a rest vertically

This method of moving a rest uses the Speedy Note Entry Tool. If you prefer to work with the Simple Note Entry Tool, see "Rests (Simple Note Entry)—To move a rest vertically," above.

- Click the Speedy Note Entry Tool ◻, and click the target measure. The editing frame appears. If you have created two voices using Voice 1/Voice 2 (the inner-voice mechanism used by HyperScribe and the Transcription Tool), you can move any rest in Voice 2 by dragging it up or down.
- Use the arrow keys to position the insertion bar on the rest. If you've created a separate voice in each layer, make sure you're in the layer containing the rest. If not, press Shift-apostrophe (') to switch layers.
- Press the asterisk (*) key. Pressing the asterisk makes the Voice 1 rest draggable.
- Drag the rest up or down. When it's positioned where you want it, press zero (0) to exit the editing frame. If you want to make sure you don't inadvertently drag the rest horizontally in the process, press Shift as you drag.

If you're using Layer 1/Layer 2, you can move *all* rests in one layer (or both) a specified distance up or down from their default center-line position (see "Multiple voices" for a more complete discussion).

TO MOVE A REST HORIZONTALLY

- Click the Speedy Note Entry Tool ⌷ , and click the target measure. The editing frame appears.
- Use the arrow keys to position the insertion bar on the rest. If you've created a separate voice in each layer, make sure you're in the layer containing the rest. If not, press Shift-apostrophe (') to switch layers.
- Drag the rest left or right. When it's positioned where you want it, press zero (0) to exit the editing frame. (You can't reposition whole rests horizontally—they're always centered in the measure.)

TO ADD A REST

- Click the Speedy Note Entry Tool ⌷ , then click the target measure. The editing frame appears.
- Press a number key. A rest appears of the duration corresponding to the number key you pressed, as shown in the table below.

Press this key	To produce this rest
1	⅞
2	⅞
3	𝄽
4	𝄾
5	𝄾
6	−
7	▬
8	▪

If a note appears instead of a rest, it's because Use MIDI Keyboard is unchecked in the SpeedOptions menu. Use the arrow keys to position the insertion bar on the notehead and press Backspace. This turns it into a rest. If you want to *insert* a rest in before existing notes, position the insertion bar just after the insertion point, and press Shift while pressing the appropriate number key. Use the number keys above the QWERTY letter keys on your computer keyboard.

TO CHANGE A REST'S DURATION

- Click the Speedy Note Entry Tool ⌷ , then click the target measure. The editing frame appears.
- Use the arrow keys to position the insertion bar on the rest. You can also click the rest.
- Press the number key corresponding to the desired new duration. (See the table of number key/rest value equivalents in "To add a rest," above.) The rest changes to the specified duration.

TO CHANGE A REST TO A NOTE

- Click the Speedy Note Entry Tool ⌷ , and click the target measure. The editing frame appears.
- Use the right and left arrow keys to position the insertion bar on the rest. Use the Up and Down arrow keys to position the crossbar on the desired pitch for the new note. You can also click the rest instead of using the arrow keys.
- Press Enter. The rest becomes a note of the same duration.

TO CHANGE A SINGLE NOTE TO A REST

- Click the Speedy Note Entry Tool 🖉 , then click the target measure. The editing frame appears.

- Use the arrow keys to position the crossbar and insertion bar on the notehead. You can also click the note instead of using the arrow keys. (This method works only on *single notes*. To change a chord to a rest, delete the chord by pressing Delete. Then insert the rest as described in "To add a rest," above.)

- Press Backspace. The single note becomes a rest of the same duration.

Reverse stems

A *reverse stem* is one that's drawn on the "wrong" side of its notehead. It's encountered most frequently in conjunction with cross-staff notes, like this.

Using the Special Tools Tool 🖉 , you can create a reverse stem on any note or chord.

TO CREATE A REVERSE STEM

- Click the Special Tools Tool 🖉 , and click the target measure. The Special Tools window appears.

- Click the Reverse Stem Tool 🖉 . A handle appears above and below each note or chord.

- Click the upper handle (for an upstemmed note), or the lower handle (for a down-stemmed note). Finale responds by attaching the stem to the opposite side of the notehead. Bear in mind that you should decide which handle to click (upper or lower) based on the stem's direction *as it appears in the score*, not necessarily as it appears in the Special Tools window. For example, if you've created cross-staff notation, the stems in the Special Tools window won't necessarily appear as they do in the score.

TO TEMPORARILY DISPLAY REVERSE-STEMMED NOTES AS NORMALLY-STEMMED NOTES

Once you've created reverse stemming, you may find your score easier to edit if stems are drawn on the correct sides of their noteheads. If so, follow the procedure below.

- Choose Options from the Special menu. The Options dialog box appears.

- Click Don't Draw Reverse Stems. When this option is selected, Finale draws every stem on the "correct" side of its notehead.

- Click OK. At any time, you can restore all affected stems to reverse-stem status by turning the Don't Draw Reverse Stems option off again. (You might want to select Allow Cross Staff Notes at the same time you deselect Don't Draw Reverse Stems, so that all notes are temporarily drawn without their unusual beaming configurations.)

Rhythmic values

See "Note values (durations)."

Ritards

See "Rallentando."

Rolled chords The rolled-chord marking (a vertical wavy line) uses a special Note Expression feature called Clone Mark, letting you drag the wavy line to make it as long or as short as you want it to be.

If you've loaded a Note Expression library into your file (or if DEFAULT.MUS is in place), you don't have to create the marking.

TO CREATE THE ROLLED CHORD MARKING

• Click the Note Expression Tool 🖼 .

• Click the top note of the chord. The Note Expression Selection box appears. If the rolled chord marking appears in the palette, double-click it. The marking appears in the score.

• Click Create. The Note Expression Definition box appears.

• Type a lower-case g. In the Petrucci music font, lower-case g is the rolled chord marking.

• Click Clone Mark. This command enables you to stretch the marking, making it as long as necessary.

• Click OK or Select in each dialog box to return to the score. The marking appears in the score, superimposed on the chord.

TO ADJUST, MOVE, OR DELETE THE ROLLED CHORD MARKING

• Click the Note Expression Tool 🖼 .

• If the marking's handle isn't visible, click the chord to which it was attached.

• Drag the top handle horizontally to move the entire marking. Drag the bottom handle up or down to shorten or lengthen the marking. For best results, don't adjust the bottom handle *horizontally*, or you'll move the composite "links" of the marking out of alignment.

• Click either handle and press Delete to remove the marking.

TO DEFINE A ROLLED CHORD MARKING FOR PLAYBACK

• Click the Note Expression Tool 🖼 . If you haven't yet placed the marking in the score, click the chord to be rolled. When the palette appears, click the rolled chord marking and click Edit, then skip to the instruction marked by the coda sign.

• Click the rolled chord. A square handle appears at the top and bottom of the marking.

• Double-click the bottom handle. The Note Expression Definition dialog box appears.

• Click the word Playback. The Playback Definition dialog box appears.

• Click Time Based and enter –150 in the Bottom Note box. The Top Note and Bottom Note boxes let you specify how you want the chord rolled. The units are EDUs, of which there are 1024 per quarter note. Thus a negative number in the Bottom Note box tells Finale to strike the bottom note slightly *before* the beat during playback. The attacks of any chord notes between the top and bottom notes are scaled proportionally between the Top Note and Bottom Note values, producing a true rolled chord sound.

If you want the chord rolled from top to bottom, enter the negative number in the Top Note box, and zero in the Bottom Note box. (These numbers are only an example. If you enter zero in the Bottom Note box and a *positive* number in the Top Note box, the upper chord notes will be struck *late*—in other words, the chord roll will begin *on* the beat.)

• Click OK or Select in each dialog box to return to the score.

TO COPY ROLLED CHORD MARKINGS (AND OTHER ARTICULATIONS)

See "Expressions: Note Expressions—To copy Note Expressions."

Running heads A running head (or header) is a piece of text appearing at the top of every page of a score—a title, date, or copyright notice, for example. (A running foot—or footer—appears at the *bottom* of every page.) You can create any such text with the Header/Footer Tool. In fact, you can even specify a running head to appear only on the even or odd pages, so that you can have different running heads on each of two facing pages.

TO ADD A RUNNING HEAD

- Click the Header/Footer Tool 🔲 . Finale switches to Page View if it's not already there.
- Double-click anywhere on the page. The Header/Footer Designer appears. (If you want to create a running footer, click Footer.)
- Type the text for the header (or footer) in the text box.
- Click your choice of Justification. Click one of the incidence options: Only on This Page, Only the Even Pages, and so on. The three Justification options are Left (flush with the left margin, with a handle on the left end), Right (flush with the right margin, with a handle on the right end), or Centered (centered between the margins, with a handle in the center). You can specify that a running head should not appear on the *first* page by clicking both All Pages (or Only the Odd Pages) and Except Page One.
- Click Set Font, and choose a font, size, and style for the header. Click OK.
- Click OK to exit the Designer dialog box. The header (or footer) may need vertical adjustment.

TO MOVE OR DELETE A HEADER OR FOOTER

- Click the Header/Footer Tool 🔲 , if it's not already selected. A handle appears on every header or footer.
- Drag the header or footer's handle to move it. Select the handle and press Delete to remove it.

Screen redraw See "Redraw."

Search and replace You can search for a pitch, a specific pitch-and-rhythm combination, or even an entire motif anywhere in a score and modify every occurrence in one of several ways. For example, you can flip every occurrence of a G♭ to its enharmonic equivalent (F♯), or change two of the notes in a recurrent theme.

TO CHANGE OCCURRENCES OF A NOTE OR MOTIF (SEARCH AND REPLACE)

• Click the Note Mover Tool 🖾 . Click the measure containing the first occurrence of the note you want to change. A handle appears on each notehead.

• Select the notes to be changed. You can select one note by clicking, additional notes by Shift-clicking, a group of notes by drag-enclosing, and additional groups of notes by Shift-drag-enclosing. You can select nonadjacent notes, as long as they're in the same measure.

• Choose Search and Replace from the Note Mover menu. A dialog box appears, letting you further specify criteria for the search-and-replace process. If you want Finale to look for the selected notes *only in their original octave*, click Notes. If it should search for the selected notes *in any octave*, click Scale Tones. Furthermore, you can confine the search-and-replace process to notes with the same *rhythmic values* by clicking Scales + Durs (matching notes in any octave and with the same duration) or Notes + Durs (matching notes in the original octave and with the same duration).

  With all of these options, Finale considers the selected notes' *scale degrees* when searching. For example, if you're searching for a C in the key of C, Finale won't consider C in the key of F a match. Instead, it will consider F a match in the key of F.

• Click the appropriate criterion button (Notes, Scale Tones, and so on). Another box appears, asking what sort of transposition you want applied. You can specify a different transposition for *each* of the selected notes, which in effect gives you the option of completely rewriting a selected motif.

• Specify the transposition option for the first selected note. If you click Diatonic or Chromatic, another dialog box appears, in which you can specify the precise transposition you want applied to the note. (You can also specify the direction of the transposition—for example, *up* or *down* a major third.) Click the button for the appropriate interval, then click OK. (If you've selected several notes, all of which are to receive the *same* transposition, click Set All. The transposition you just specified will be assigned to all selected notes. Skip to the instruction marked with a coda sign.)

• If more than one note was selected, click Next. The number in the dialog box title, Alteration for Slot (#), advances. (A "slot" is a selected note. Finale numbers them from bottom to top within a chord, and from left to right in the measure.) Set the transposition option for this note in the same way. Continue through the selected notes ("slots"), clicking Prev or Next as necessary, and setting the transposition option for each.

⊕ Click OK. The Search menu appears. Its commands are Find, which finds the next occurrence of notes matching your criteria; Replace, which modifies the currently selected notes according to your transposition specifications; Replace then Find, which modifies the current notes and then finds the next occurrence; and Replace All, which reads through your piece, measure by measure, in every staff, changing every occurrence of notes meeting your search criteria.

• Choose a command from the Search menu. The Replace All command may take Finale some time to complete.

• Choose Quit Search from the Search menu. You return to the score.

  Finale offers a second method of its Search and Replace feature that doesn't require you to choose menu commands. To use this alternate method, click the Note Mover Tool 🖾 , click the measure containing the first occurrence of the notes to be changed, select their

handles, and CTRL-click any selected handle. A special strip appears at the top of the window, displaying the same commands found in the Special menu—but in *button* form. You can click these buttons instead of choosing the commands from the Search menu—a method you may find more efficient. Click Set to display the first of the criterion dialog boxes. Click Cancel to exit Search and Replace mode.

Second endings See also "First endings."

The second ending (in the sense of being the final ending in a set of repeats) is purely graphic. If you create a playback-functional first ending (as described in "First endings"), the second ending needs no playback definition.

TO CREATE A SECOND-ENDING BRACKET

- Click the Repeat Tool 🔳 . Click the first measure of the second ending. The Repeat Selection box appears. The four types of repeat barlines appear as icons at the top of the box.
- Double-click the rightmost icon (the Multiple Ending Repeat barline). The Ending Repeat Bar Assignment box appears.
- Enter the text to appear under the bracket. If this is a second ending, you'll probably want to type "2." into the box. Since this is a nonfunctional repeat barline (graphic only), leave the other options in this box alone.
- Click OK. To adjust the bracket, drag either of the upper handles in any direction. You can't drag the bracket much longer than the measure itself, unless you selected Individual Positioning in the Ending Repeat Bar Assignment box. To delete the repeat barline (bracket and all), click its bottom handle and press Delete.

Septuplets See "Quintuplets," "Tuplets."

Sequencers See "MIDI files—To import a MIDI file."

Sequencing Finale isn't a sequencing program. Yet it duplicates many functions of a sequencer, and has the added advantage of being notation-based.

In this volume, you'll find separate entries for "Real-time recording (Transcription Tool)—To add tracks," "Tempo," "MIDI channels," "MIDI files," "Dynamics," "Rallentando," "Key velocity," "Pitch wheel," and so on, all of which affect the playback of your score. You'll also learn about some important sequencer-like features in *Learning Finale,* especially in Tutorial 7, "Advanced MIDI Topics."

If you plan to use Finale as a quasi-sequencer, it's important to recognize that Finale can play back any score in one of two very different ways. When you play your score with no options checked in the Playback Options dialog box, you hear a playback of the *notation.* It's an "intelligent" performance, because it responds to expression markings such as dynamics, ritards, accents, and so on. Nonetheless, the performance will be rhythmically perfect, lacking any of the irregularities in performance that give music a human "feel."

Instead of merely playing back the notated score, Finale can play back the score using *captured MIDI data.* Captured MIDI data is the actual, unquantized MIDI "recording" of a performance you created in the Transcription Tool, including your key velocity information, your ritards, and your pedaling. What's even more useful is that once you've transcribed such a performance, you can edit the notes, the dynamics, and other elements of the notated score. When you play the performance data version, you'll hear your changes incorporated as the original performance plays back.

In brief, you must "capture" this MIDI data while you're still in the Transcription Tool by clicking Capture Time Dilation, Capture MIDI Xpression, and Capture Performance. Then, after you've transcribed the performance into notation, choose Auto Start Time Dilation, Use Captured MIDI Expressions, and Use Captured Performance from the Playback Options dialog box (in the Playback menu). For a more complete discussion of captured MIDI data, see Tutorial 5 in *Learning Finale*.

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Shape Designer

You can create your own shapes and symbols in Finale using the built-in Shape Designer. This graphics mode generates actual PostScript code, meaning that anything you draw will print cleanly and smoothly on a PostScript printer, though the computer's relatively low-resolution screen may not represent it as clearly. For example, you might create a glissando line, a harp pedaling diagram, or a dotted-line barline. You can also design rectangles to use as text enclosures when you're creating Text Blocks, block rests to serve as multimeasure rests in extracted parts, and special shapes for use as custom stems.

To create a shape for use as a marking in the score, you access the Shape Designer from the Staff Expression or Score Expression Tool (see "Expressions: Staff Expressions" and "Expressions: Score Expressions"). (Other tools that access the Shape Designer are outlined in "To enter the Shape Designer," below.)
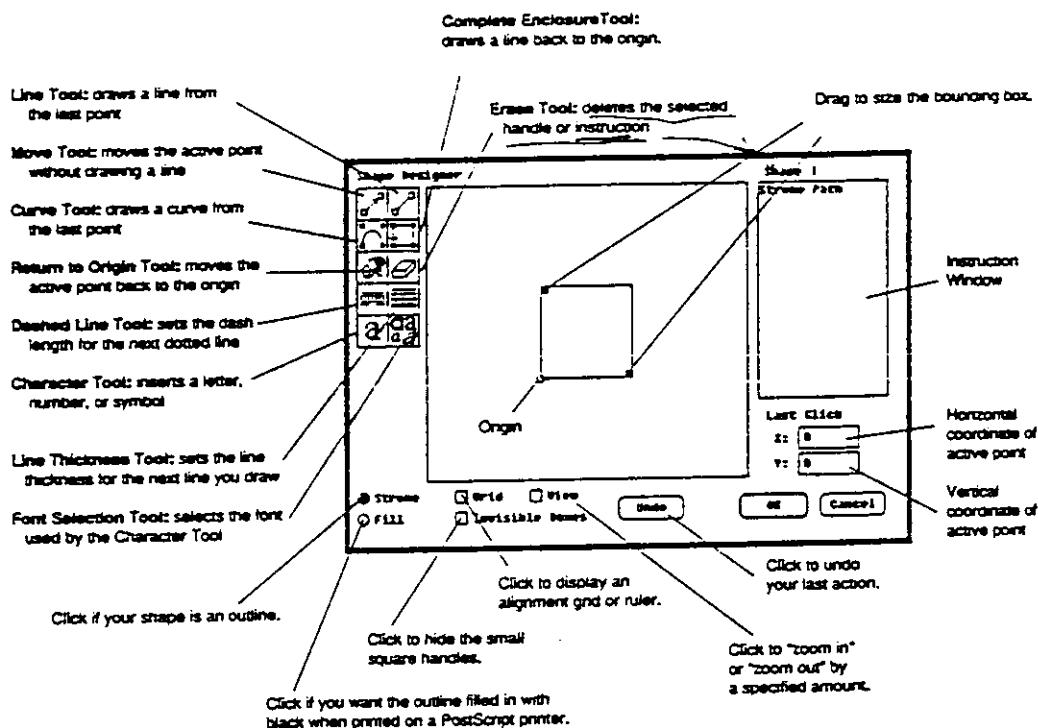
TO ENTER THE SHAPE DESIGNER

- Click the Staff Expression Tool ⬚ (to place the shape in one staff) or the Score Expression Tool ⬚ (to place it in several or all staves).
- Click on, above, or below the note (for Staff Expression) or measure (for Score Expression) to which you want to attach the marking. The Staff Expression or Score Expression Selection box appears.

- Proceeding through the dialog boxes, click as follows: Shape, Create, *Shape ID*, Create. You enter the Shape Designer.

  While this is the route you'll most often follow, there are various other ways to enter the Shape Designer. For example, you can choose Parameters from the Special menu and click *Shape ID*. In the Special Tools window, you can click the handle of any note when the Custom Stem Tool ⬚ is selected. When you choose Special Part Extraction from the Edit menu (or Print Parts from the File menu), click *Shape ID* in the Measure Rest Definition dialog box that appears. Or click Execute Shape (then click *Shape ID* and Create) when you're defining a Staff Expression or Score Expression for playback.

TO CREATE A SHAPE

- Enter the Shape Designer. See "To enter the Shape Designer," on the previous page.

  You arrive at a graphics window with ten drawing tools along the left edge of the screen, some options along the bottom, coordinate boxes at the lower right, and an Instruction Window at the upper right.

  To create a shape, you draw one line at a time. The kind of line you draw is determined by the tool you click. The direction and length is determined either by your mouse click *before* drawing the line or by the coordinates you enter in the X and Y boxes.

  Many of the controls in this window help you design your shape. For example, by dragging anywhere in the drawing window, you can move the entire shape to see your work better. If the shape is to be very large or very small, you can "zoom in" (or out) by clicking View, which allows you to specify a view percentage. Higher numbers magnify your shape. If the small square handles get in your way, click Invisible Boxes to hide them. Finally, if you want Finale to display a background grid with which you can visually align your work, click Grid. A box appears, letting you specify the distance between gridlines.

- Set the characteristics of the line you're about to draw by clicking the Line Thickness Tool ▤ or the Dashed Line Tool ▦, if desired. You need to make these changes *before* *you draw the line.* If you don't change the line thickness, the line will be one point thick—about twice the thickness of a PostScript-printed staff line. When you click the Line Thickness Tool, a dialog box appears, letting you specify the thickness of the line in hundredths of a point (there are 72 points per inch). If you want to draw a dotted line, click the Dashed Line Tool, which brings up a dialog box letting you specify the lengths of the dashes (Dash On) and the space between dashes (Dash Off), in hundredths of a point. A dotted line will appear dotted on the screen unless it's perfectly vertical (or made with the curve tool), in which case it appears as a solid line. On a PostScript printer, however, it will still print as a dotted line.

- Click the spot where you want the first line to *end.* You always tell Finale where the line will end *before you draw it.*

  The first line you draw always begins at the origin (the small, white, round handle). Instead of clicking, you can also type numbers into the X and Y boxes. These numbers are like plane geometry coordinates, measured in EVPUs (288 per inch). To draw a diagonal line at a 45 degree angle, for example, you must think of it as a line that slants one inch *up* and one inch to the *right* from the origin point. So, you'd type 288 into the X box (for one inch to the right), and 288 into the Y box (for one inch up). If you specify the line's endpoint by clicking, the coordinates of the place you clicked appear in the X and Y boxes automatically. Don't be overly concerned about the accuracy of your click— once the line is drawn, you can drag its handle to reposition it.

- To draw the line, click the Line Tool ▱ or the Curve Tool ◨. Finale draws a line from the origin to the point you specified in the second step, with the line characteristics you specified in the first step. At the same time, it creates a new line of text in the Instruction Window (upper right of the screen). These are the actual PostScript commands that will draw your shape. If you click the Curve Tool, Finale draws a Bezier curve, complete with two midpoint handles that you can drag to reshape the arc.

- Specify new line width and dash characteristics, if desired, and click (or enter coordinates for) the next line segment. Click the Line or Curve Tool. You can continue building a shape in this way: specify the line characteristics, specify the next endpoint, click the tool. Occasionally, you may need to "pick up your pen"—to move the *active point* (from which Finale will begin the *next* line) without drawing a line, as you would if you were drawing a T shape. The process is the same: specify the desired location by clicking (or entering coordinates). Instead of clicking the Line or Curve Tool, click the Move Tool ⚐ (the top left icon). The "pen" moves to its new location without drawing a line.

- If you want to incorporate a letter of the alphabet into the shape, set the font, specify the location, and click the Character Tool ⓐ to specify the letter or symbol. Up to this point, we've been discussing only line segments and curves as elements of your shape. You can, however, incorporate *text* into the shape—for example, the letters *g-l-i-s-s* as part of a glissando shape.

  Click the Font Selection Tool ⚏ (bottom right icon) to set the font and size of the text *before* creating the character or characters. (You can only have one font and size per shape, although you can have several characters of text.)

  Next, click (or enter coordinates for) the location of the letter, and click the Move Tool (top left icon) to move the active point to that spot, ready to draw the letter. Finally, click the Character Tool (bottom left icon) to choose the character. Type the character in the Character to Draw text box and click OK. The letter appears at the position you specified. If you want to add other letters (if you're building a word, for example), you don't *have* to specify the location for each. If you click the Character Tool repeatedly, Finale automatically places each new character just to the right of the previous one.

- If you make a mistake, click Undo. Undo only deletes your last operation, however. If you want to, you can change an element of the shape even after it's too late to use Undo. The first step is to identify its *instruction* in the Instruction Window. (If it was a curve, you'll see "Curve To"; if it was a line, you'll see "Relative Line To"; and so on. Click the instruction itself in the Instruction Window to highlight it.) Or you can click an element's handle—its corresponding instruction becomes highlighted.

  Once the instruction is highlighted, click the Erase Tool ⚐. The instruction and its corresponding graphic element disappear. In the same way, you can *insert* a graphic element between two existing ones. First, click (or specify coordinates for) the position of the element to be inserted. Next, click the handle (or the instruction itself) of the element *before which* you wish to insert something. Finally, click the appropriate tool. The line, curve, or other element is inserted into the shape. (A Finale shape has a maximum of 16 instructions.)

  Finally, you can *double-click* certain instructions (such as Set Font, Set Width, Set Dash, and Draw Character) if you want to edit the settings described by them. The appropriate dialog box will reappear. For example, if you decide to change the font for some text you created with the Character Tool, double-click the "Set Font" instruction. The Text Font, Size and Style dialog box appears, so that you can select a different font.

- To return a line to the origin (to complete an enclosure, for example), click the Complete Enclosure Tool ⚏. You don't need to click the position for this line's endpoint—it's always the origin (the small white circle). For example, if you're creating a rectangular enclosure into which you wish to "pour" text for a text block, this should be your last step. It ensures that the shape you've drawn is completely closed. If you need to move the active point to the origin *without* drawing a line—before drawing a new spoke from a center (origin) point—click the Return to Origin Tool ⚐.

- Click OK, then Select. A dialog box appears, letting you specify additional aspects of your new shape. Flip Stroke *fills in* the outline you created in the Shape Designer, so that it prints on a *PostScript* printer as solid black. If you select Flip Stroke *and* Paint White, the shape will be filled solid white—useful for creating "cutout" music, staves that end in mid-system, and so on.

If you select Use This Data, your shape will only have a single handle in the score—in other words, you can't reshape it once it's in place. Compare with Lock Shape, which permits you to drag the handles of the expression to reshape it even after it's in the score, but prevents the shape from being "stretched out" along with the music if Finale must slightly widen the measures to fully justify the system. For example, you'd want to specify Lock Shape for a fixed-shape symbol such as a harp pedaling diagram—but not for markings that should stretch along with the music they affect, such as slurs, crescendo hairpins, or glissando lines.

• Click OK or Select in each dialog box to return to the score.

Shape note music See "Note shapes."

Simile The expression *simile*, or *sim.*, can be either a Staff Expression (if it only appears in one staff) or a Score Expression (if it appears in more than one staff).

To PLACE A *SIMILE* MARKING INTO A SCORE

• Click the Staff Expression Tool 🄴 (to place the marking in one staff) or the Score Expression Tool 🄳 (to place it in several or all staves).

• Click on, above, or below the note (for Staff Expression) or measure (for Score Expression) to which you want to attach the marking. The Staff Expression or Score Expression Selection box appears. If the expression already appears in the list, double-click it and click OK.

• Click Create. The Text Expression Designer appears.

• Type "simile" or "sim." Click Set Font to change the type style (the *simile* marking is often set in italic type, for example).

• Click OK, then Select. The Expression Assignment box appears. If you're creating a Score Expression, specify Individual Positioning, if you like. Or, if you want to specify the staves in which the mark is to appear, click *Staff List*. See "Expressions: Score Expressions" for more information.

• Click OK.

To MOVE OR DELETE THE *SIMILE* MARKING

• Click the tool (Score Expression or Staff Expression) that you used to create the marking.

• Click the measure (Score Expression) or note (Staff Expression) the marking is attached to. Its handle appears.

• Drag the handle to reposition the marking. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it.

Simultaneous key signatures See "Multiple key signatures."

Simultaneous time signatures See "Multiple time signatures."

Sixteenth notes See also "Beaming."

You can enter sixteenth notes into the score with or without MIDI keyboard input. You can also change any existing note into a sixteenth note. You can change the beam angle of sixteenth notes, and specify places at which the sixteenth-note beam is to break independently from the eighth-note beam.

## TO ADD A SIXTEENTH NOTE (USING MIDI INPUT)

- Click the Speedy Note Entry Tool ▣ . The SpeedOptions menu appears. Make sure there's a check mark beside Use MIDI Keyboard.
- Click the target measure. The editing frame appears. Position the insertion bar to the right of any existing notes in the measure.
- Hold down a key (or keys) on the synthesizer and press the 3 key on the computer keyboard. Any pitches you played appear as sixteenth notes.

TO ADD A SIXTEENTH NOTE (WITHOUT MIDI INPUT)

- Click the Simple Note Entry·Tool ▣ . The Simple Note palette appears.
- Click the Sixteenth Note ▣ .
- Click where you want the note to appear in the score. A sixteenth note appears.

TO CHANGE A NOTE'S DURATION TO A SIXTEENTH NOTE

- Click the Speedy Note Entry Tool ▣ , then click the target measure. The editing frame appears.
- Press the right arrow until the insertion bar is on the note whose duration you want to change.
- Press the 3 key. The note changes to a sixteenth note.
  Alternate method: Click the Simple Note Entry Tool ▣ , click the Sixteenth Note ▣ , click the note you want to change.

Sizes See "Fonts," "Note size," "Page size."

Slide See "Glissando."

Slurs There are two ways to create a slur in Finale. The quick, easy way is to use a Smart Shape. A Smart Shape slur expands and contracts with the music and automatically breaks in two if it straddles two staff systems.

If you want to place identical slurs in more than one staff, place the slur as a Score Expression.

Slurs and phrase markings technically serve different musical purposes. However, you use the same Finale techniques to create both. In this discussion, the term *slur* refers to both kinds of markings.
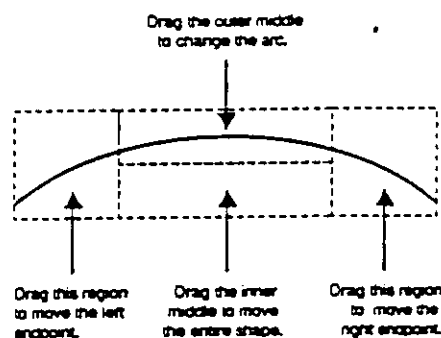
TO CREATE A SLUR (SMART SHAPE METHOD)

- Click the Simple Note Entry Tool ▣ . The tool palette is replaced by the Simple Note palette.
- Click the Over-Slur ▣ or Under-Slur Tool ▣ .
- Position the cursor at the point where you want the slur to begin. The cursor has an arrow pointing to the staff to which the Smart Shape is going to attach itself.
- Double-click the mouse. On the second click, *hold the button down* and drag to the right until the slur is the desired length. As long as you hold the button down, you can keep moving the endpoint of the slur. If you press Shift before you double-click, the mouse will be "constrained" to horizontal or vertical movements so that you create a perfectly symmetrical slur.

To MOVE, RESHAPE, OR DELETE A SMART SHAPE SLUR

If the slur you want to edit is already selected, it displays a bounding box, in which case skip to the instruction marked by the coda sign.

- Click the Simple Note Entry Tool 🔲 . The tool palette is replaced by the Simple Note palette.

- Click the slur tool you used to create the slur (Over-Slur or Under-Slur). A handle appears on every slur created by this tool.

- Click the desired slur's handle. The shape displays a bounding box, which is invisibly divided into four areas:

Drag the outer middle
to change the arc.

Drag this region   Drag the inner   Drag this region
to move the left   middle to move   to move the
endpoint.   the entire shape.   right endpoint.

- Drag the appropriate portion of the bounding box to move the whole slur or change its arc or its endpoints. If you do any dragging while pressing Shift, the mouse will be "constrained" to horizontal or vertical movements.

  You can modify the slur in a few additional ways if you press CTRL while dragging. CTRL-drag the upper middle section of an Over-Slur (or the lower middle of an Under-Slur) to reshape the slur asymmetrically. CTRL-drag the right or left *outer* sections to change the "sharpness" of the slur's arc—drag away from the center of the slur to make the slur "fatter," and drag inward to make it more pointed.

- Press Delete to remove the selected slur. If pieces of the slur still appear on the screen, choose Redraw Screen from the View menu.

To SPECIFY THE DEFAULT APPEARANCE OF A SMART SHAPE SLUR

If you find yourself modifying Smart Shape slurs in the same way every time you create one—decreasing the height of the arc, for example—you may prefer to simply predefine a certain arc height and curvature.
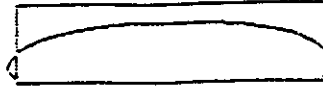
- CTRL-click either slur tool (Over-Slur 🔲 or Under-Slur 🔲). The Initial Slur Settings dialog box appears.

- Specify a new default arc height and curve shape for Smart Shape slurs. You change the default arc height by changing the number in the Height text box. This number, measured in EVPUs (288 per inch), specifies how deep the default slur's arc should be, as measured from the "baseline" (the horizontal line defined by the slur's endpoints).

  You can also make the slur's arc "steeper" or "flatter" by editing the *control point pull.* This number, measured in EVPUs (288 per inch), specifies the amount by which you want to *change* the positions of the *control points* (see the diagram below), as measured from their default positions. Enter a positive number to move the control points toward each other, resulting in a sharper (steeper) slur curve. Enter a negative number to move the control points farther away from each other, resulting in a more bowed (flatter) slur curve.
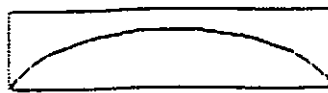
Control Point Pull [100]   Control Point Pull [0]   Control Point Pull [-100]

• Click OK. From now on, any time you create a Smart Shape slur (by double-clicking and dragging, as described in "To create a slur [Smart Shape method]," above), it will appear in the score with the default settings you've specified.

To copy Smart Shape slurs

Using the following technique, you can copy Smart Shape slurs from one place in the music to another, or from one staff to another.

• Click the Mass Mover Tool 🖼 . The Mass Mover menu appears.

• Choose Copy and Replace, Move Only, and Measure Items from the Mass Mover menu. The Measure Items dialog box appears.

• Click Smart Shapes. Click OK. You return to the score.

• Select the region containing the Smart Shapes you want to copy. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, or click to the left of the staff to select the entire staff. You can also use the Set Selection command in the Mass Mover menu to select a large region without having to scroll.

• Drag the first source measure so that it's superimposed on the first target measure. If the first target measure is not on-screen, scroll until you see it. Then, while pressing CTRL and Shift simultaneously, click the first target measure. In either case, the How Many Times dialog box appears (unless you're copying to a target measure directly above or below the source measure).

• Type the number of times you want the Smart Shapes copied (horizontally). Click OK.

To create a Shape Expression slur

While Smart Shape slurs are quick and easy to put into one staff at a time, you may occasionally need to place an identical slur in more than one staff at once. If there are only two or three other staves into which you want to put the slur, copy the first Smart Shape slur into the other staves with the Mass Mover (see "To copy Smart Shape slurs," above).

If you want to place identical slurs in many staves, use the Score Expression Tool. If DEFAULT.MUS is in place, or if you've loaded a Shape Expression Library, you don't need to draw the slur in the Shape Designer. (Score Expressions, the Shape Designer, and Metatools are all discussed under the entries "Expressions: Staff Expressions" and "Expressions: Score Expressions.")

If you use this method, *place Score Expression slurs into the score with Metatools.* If you don't, you may discover that every Score Expression slur in your piece is reshaped when you change the shape of any one of them.

When you place a slur into the score with a Metatool, it initially appears in every staff. If you want to specify a subset of staves in which it's to appear, Shift–double-click the shape's handle. The Expression Assignment box appears, in which you can click *Staff List* to specify the staves in which the slur is to appear. Again, see "Expressions: Score Expressions."

• Click the Score Expression Tool 🖼 , and press CTRL-number. The number can be any of the numbers from 1 to 8. (You're in the process of programming a Score Expression *Metatool*. You're going to assign the slur to the number key you just pressed.)
The Score Expression Selection box appears.

• Click Shape. If DEFAULT.MUS is in place—or if you've loaded a Shape Expression Library—a selection of slur shapes appears.

• If you see the slur you want in the palette, double-click it, click OK, and skip to the instruction marked by the coda sign.

• If you don't see the slur you want, click as follows: Create, *Shape ID*, Create. You arrive at the Shape Designer, where you can now create the slur shape.

- Enter 400 in the X box and click the Curve Tool ⬚ . Finale draws a curve with four handles. By dragging these handles, you can create a preliminary shape for your slur.
- Drag the middle handles to reshape the curve of the arc. Drag the right handle to move the endpoint. You'll find that all handles to the *right* of the one you're dragging also move. Therefore, make your adjustments beginning with the leftmost handle.
- Click OK, then Select. You arrive at the Shape Expression Designer dialog box.
- Click Make a Slur. This step ensures that the slur will have smoothly tapered ends when printed on a PostScript printer.
- Click OK or Select in each dialog box to return to the score. You've now successfully programmed a Metatool.
- To place the slur in the score; hold down the number key corresponding to the Metatool you programmed and click the measure where you want the slur to begin. The slur appears. Drag its handles to reshape it. (Press the CTRL key as you drag a handle to prevent the other handles from also moving.) To place other slurs in the score, repeat the instruction above (marked by the coda sign).

  You might consider programming *two* Score Expression Metatools—one for an over-slur and one for an under-slur.

Sonata font The Sonata font, from Adobe Systems, is a PostScript music font. If you prefer, you can use Sonata instead of Petrucci as your Finale music font. Follow the steps below to tell Finale to compensate for differences in the placement of various characters in the Sonata font.

To use only *selected* elements of the Sonata font (instead of making it your primary music font), see "Fonts—To change a musical element's font."

TO USE THE SONATA FONT INSTEAD OF THE PETRUCCI MUSIC FONT

- Choose Data Check from the Edit menu. The Data Check dialog box appears.
- Click Switch Default Font, then click Do Selected Action. A font selection box appears.
- Choose the Sonata font in the size you want. Click OK. The "standard" Sonata font size is 24-point.
- Click Done. If you decide to use the Sonata font instead of Petrucci, you may not be able to print on non-PostScript laser printers, because the Sonata font—unlike Petrucci—includes special codes that prevent it from printing on printers that aren't *true* PostScript devices.

Finale makes the following adjustments to accommodate the Sonata font:

Dialog box	Settings
Special menu: Music Characters	*First Up Flag*: Stroke is unchecked
Special menu: Music Characters	*First Up Flag*: At Origin.y is unchecked
Special menu: Music Characters	*First Down Flag*: At Origin.y is unchecked
Special menu: Music Characters	Flag Offset = 7
Special menu: Clef Designer	Use Aux is checked

Song titles See "Titles."

Soprano clef There are two clefs sometimes referred to as the "soprano clef." In general, the term refers to the treble or G clef (See "Treble clef").

Occasionally the term refers to an archaic clef, for which middle C is the bottom line of the staff. Although this isn't one of Finale's standard clefs, you can create it using Finale's Clef Designer. See "Clefs" for full instructions for defining new clefs.

Spacing For instructions on changing the spacing of fixed musical elements (clefs, key signatures, and so on), see "Distances." For information on setting page margins, see "Margins (page)" and "Page layout." See also "Measure layout" (for instructions on arranging the measures on the page) and "Systems" (for information pertaining to the placement of systems on the page).
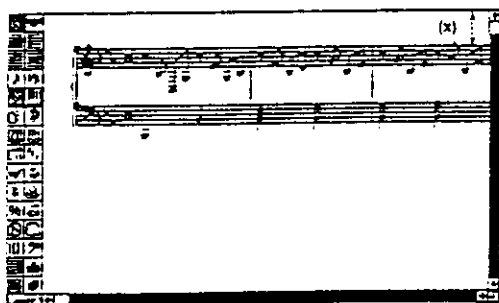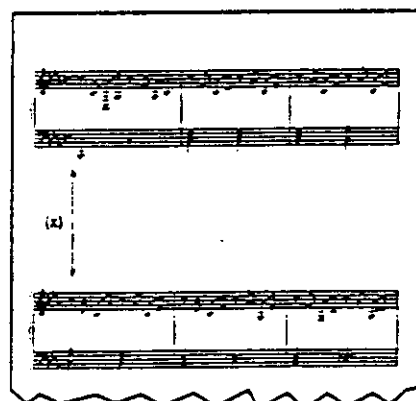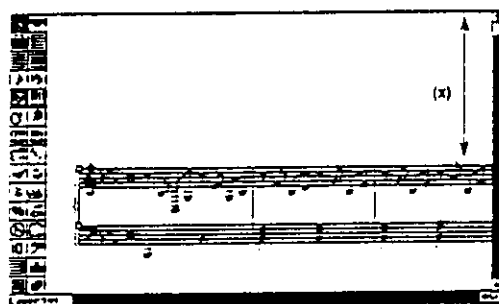
TO CHANGE THE SPACING OF SYSTEMS

The distance between systems (in Page View and in printouts) is determined by the distance between the top of the music in *Scroll View* and the top of the window. The distance between systems directly affects the number of systems that will fit on a page.

- Choose Scroll View from the View menu, if Finale's not already there.
- Click the New Staff Tool ▦.
- Choose Select All from the Edit menu. All staff handles are highlighted.
- To increase the space between systems, drag any handle downward. To decrease the space between systems, drag any handle upward. You can also change the distance between systems with the Page Layout Tool (see "Page layout").

The distance between the top staff and the top of the window in Scroll View (x) sets the distance between systems in Page View (and on the printouts). The smaller this distance, the more lines of music will fit on the page.

To change the spacing of staves within a system

You set the spacing of staves within a system with the New Staff Tool by dragging staff handles up or down. If you want to create multiple evenly spaced staves, set up your score by CTRL-clicking any staff handle with the New Staff Tool. Click Add in the box that appears. Specify the number of new staves and the amount of space from the top line of one to the top line of the next (measured in EVPUs, of which there are 288 per inch), and click OK.

• Click the New Staff Tool ▣ . A handle appears on each staff. If you want to move more than one staff at once—for example, to move both staves of the piano part farther away from the vocal staff—select the handles of all the staves you want to move. (Shift-click to select an additional handle, drag-enclose to select a group of handles, and Shift–drag-enclose to select an additional group of handles. The handles you select need not be on adjacent staves.)

If you have many staves, you may want to change your View Percentage [View Menu] to some tiny percentage, such as 30%. More staves will fit on the screen, and you can select many more at a time.

• Drag a selected handle up or down. If you've selected more than one handle, they all move when you drag any one of them. (If you want greater accuracy in specifying the vertical location of a staff, CTRL-click its handle. In the box that appears, enter a new value in the Distance box, which measures the amount of space from the top line of this staff to the top line of the previous one [measured in EVPUs].)

To change the spacing of the music

When you first enter music into Finale, its spacing is *linear*. A whole note occupies exactly the same amount of horizontal space as four quarter notes. When a piece of music is professionally typeset, the engraver uses a table of width measurements for various note values to create *nonlinear spacing*, in which a whole note is accorded less space than two half notes, two half notes occupy less space than four quarter notes, and so on.

In Finale, these tables of width measurements are called Allotment Libraries. By spacing your music with the aid of an Allotment Library, you can create extremely professional-looking scores, in which measures are only as wide or narrow as they need to be.

To load an allotment library into an open file

If DEFAULT.MUS is in place (in the FINALE directory), the medium-width Allotment Library (Q = 3.5) is already installed. The following instructions apply only if you want to use a different library.

• Choose Load Library from the File menu. A dialog box appears, listing the various directories on your disk. Open the LIBRS directory.

• Select an Allotment Library from the LIBRS directory by double-clicking it. The three Allotment Libraries provided with Finale are called ALOTQ3-0, ALOTQ3-5, and ALOTQ4-0. These numbers indicate the relative "wideness" of the allotment values. Music that's been spaced using ALOTQ3-5.LIB will be "tighter" than music spaced with ALOTQ4-0.LIB. (These "Q" values describe the amount of space, in *spaces*, allotted to a quarter note. A *space* is a unit of measurement used in engraving that corresponds to the distance between two staff lines. In Finale, a space is equivalent to 24 EVPUs, of which there are 288 per inch.)

To use an allotment library for music spacing

• Click the Mass Mover Tool ▣ .

• Select the music you want respaced. In general, you'll want to choose Select All from the Edit menu, so that all staves are highlighted. (If you select only one staff, for example,

you could get unexpected results, because the respacing Metatools set the measure widths for *all staves* according to the spacing of the *selected* region. Thus if you select and respace measure 1 in the flute staff, that contains only a whole note, the running eighth notes in measure 1 of another staff may be compressed and overlapping.)

- While pressing the 3 key, double-click the highlighted region. This process takes time. When the Mass Mover's "churning truck" cursor disappears you'll find that your music has been carefully respaced according to the Allotment Library's specifications. (You have just used a Mass Mover Metatool—Metatool 3—which uses the Allotment Library to space your music on a *beat-by-beat* basis. You can also opt for Mass Mover Metatool 4, which respaces on a *note-by-note* basis. The results of Metatool 4 are more precise in some cases, but the affected music takes slightly longer to respace. For a full discussion of the two spacing methods, see "Entry Layout dialog box" in *Finale Reference*.)

Speed
For hints on speeding up Finale's operations, see the final section of *Learning Finale* ("Making the Most of Finale").

Split points
To specify a point at which a *measure* may split across a system (line) break, see "Measures—To split a measure across a line break."

You'll need to specify a different kind of split point when you use either of Finale's real-time transcription tools (HyperScribe or the Transcription Tool) to transcribe a two-handed keyboard performance. Since the computer can't "see" your hands, you must tell it how it should split your performance onto the two staves.

TO SPECIFY A "KEY SPLIT" SPLIT POINT

To enter HyperScribe, click the HyperScribe Tool. The HyperScribe menu appears. To enter the Transcription window, click the Transcription Tool, then click the measure where the transcription is to begin. See "Real-time transcription (HyperScribe)" or "Real-time recording (Transcription Tool)."

- Choose Split Point (from the HyperScribe menu) or By Split Point (from the Transcribe menu). A dialog box appears, letting you enter a number. The number refers to a specific key on your synthesizer. Middle C is key number 60.
- Click Listen to MIDI. An X appears in the box.
- Play the synthesizer key you want to designate as the split point for your transcription. If your MIDI equipment is set up properly, the X disappears and the number in the Split at Key Number box changes. (You can also type a number directly into the box.) When Finale transcribes your performance, all notes *below* the note of that key will be put on the lower staff; all notes *above and including* the specified key will be on the upper staff.
- Click OK.

TO SPECIFY A MOVABLE SPLIT POINT (TRANSCRIPTION TOOL ONLY)

If the piece you intend to transcribe doesn't have any one split point—if the ranges of notes played by your right and left hands during the piece aren't completely distinct—you can use Finale's Hand Width split point. Finale will split a two-handed performance onto the correct staves (usually treble and bass clef) by tracking the positions of your hands as they move up and down the keyboard. As long as there's a discernible gap between your two hands at any given moment, Finale can adjust the split point on a note-by-note basis automatically.

- Choose Split Point: By Hand Width from the Transcribe menu. A dialog box appears.
- Click Listen to MIDI, and play a one-hand-width interval on the synthesizer keyboard. Don't necessarily play the widest interval you can reach. Instead, play the largest interval you played with one hand *in the piece*. Strike the two notes comprising your hand width

more or less simultaneously. The number in the Hand Width box, measured in half steps, changes to reflect the interval you played. (Instead of clicking Listen to MIDI, you can also enter a number directly into the Hand Width box.)

- Click OK. If Finale still makes a few errors in the resultant transcription—for example, your hands were too close together for Finale to track them—use the Note Mover Tool to correct split point errors (see below).

TO CORRECT SPLIT POINT ERRORS

Occasionally, if there is no clear split point or if your hands cross, a HyperScribe or Transcription Tool transcription will contain left-hand notes in the upper staff or right-hand notes in the lower. Using the Note Mover, you can restore the notes to the proper staves.

- Click the Note Mover Tool ⏍ . The Note Mover menu appears.
- Choose Delete After Merge from the Note Mover menu. In other words, you'll *delete* the incorrectly split note from its current staff and *merge* it with the correct staff.
- Click the measure containing the incorrectly split notes. A handle appears on each notehead.
- Select the notes to be moved. Select one note by clicking its handle, several adjacent notes by drag-enclosing them, or additional notes by Shift-clicking (or Shift–drag-enclosing) them.
- Drag any highlighted handle onto the target staff. You don't have to drag it to any particular line or space, just drag it onto the correct staff. The notes appear on the correct lines or spaces of the new staff automatically.

Split stemming See "Stems—To create a double or split stem."

Staccato The staccato mark (·) is a Note Expression. If you've loaded a Note Expression library into your file (or if DEFAULT.MUS is in place), you don't have to create the symbol.

TO CREATE A STACCATO MARK ON A NOTE

- Click the Note Expression Tool ⏍ .
- Click on, above, or below the note. The Note Expression Selection box appears. (The location of your click determines the position of the resultant dot, so click squarely above the center of the notehead [or below it, if it's a stem-up note]).
- If the staccato mark appears in the selection box, double-click it. You return to the score, where the staccato mark is attached to the note you clicked.
- If you don't see the staccato mark in the selection box, click Create. The Note Expression Definition box appears.
- Type a period (.). In the Petrucci music font, the period is the staccato mark.
- Click OK or Select in each dialog box to return to the score. When a staccato mark first appears in the score, it may be obscured by its own handle. Choose Redraw Screen from the View menu to reveal the mark itself.

If you have many staccato marks to create—for example, several measures of running eighth notes—you can avoid the dialog box altogether by assigning the staccato mark to a *Metatool*, which allows you to place a staccato mark every time you click. See "Expressions: Staff Expressions—To define a Note, Staff, or Score Expression Metatool." You may also wish simply to place a Text Expression, such as *sempre staccato*, under the staccato passage. See "Expressions: Staff Expressions" for full instructions on the creation of Text Expressions.

To move or delete a staccato mark

- Click the Note Expression Tool ⬛.
- If the mark's handle isn't visible, click the note to which it was attached.
- Drag the handle to move the staccato mark. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the mark and it still appears to be on the screen, choose Redraw Screen from the View menu.

To define a staccato mark for playback

- Click the Note Expression Tool ⬛. If you haven't yet placed the mark in the score, click any note you want to receive the mark. When the palette appears, click the desired symbol and click Edit, then skip to the instruction marked by the coda sign.
- Click the note to which the staccato mark is attached. A handle appears on the staccato mark.
- Double-click the handle. The Note Expression Definition box appears.
- Click the word Playback. The Playback Definition dialog box appears.
- Click Time based, Alter Duration, and Value is Fraction. Type 1 and 2 into the first and second Bottom Note text boxes, respectively. You're telling Finale that a note affected by this mark should last only half as long as it normally would. You can use any fraction you like instead of one half—just be sure to click Value is Fraction.
- Click OK or Select in each dialog box to return to the score.

To copy staccato marks (and other articulations)

See "Expressions: Note Expressions—To copy Note Expressions."

Staff See "Staves."

Staff groups
Every staff in Finale can be assigned to a *staff group*. Grouped staves have several important characteristics. First, barlines are drawn continuously through the space between the staves in a group. (You *can* break the barline between a particular pair of staves. See the next page.) Second, only grouped staves may be bracketed. Third, when you're extracting parts, the Split Orchestral File command gives you the option of extracting them group by group (instead of staff by staff), making it possible for pairs of staves (piano or harp, for example) to be extracted together.

To group staves

- Click the New Staff Tool ⬛. A handle appears on each staff.
- Select the handles of the staves to be grouped. Shift-click to select more than one handle, or drag-enclose as many handles as you want. Choose Select All from the Edit menu to select *all* handles (after which you can Shift-click the handle of any staff you want to *exclude* from the selected group of staves).
- Double-click any selected handle. The staves are now grouped. Finale draws continuous barlines through all grouped staves.

To ungroup a staff

Using this technique, you can exclude a currently grouped staff from its staff group.

- Click the New Staff Tool ⬛. A handle appears on each staff.
- CTRL-click the handle of the staff you want to ungroup. The Staff Usage List dialog box appears.
- Enter zero (0) in the Group text box. If you want to ungroup other staves while you're at it, click Prev or Next to display their data, and repeat the process.

- Click OK. You return to the score, where the staves whose Group numbers you changed to zero are now ungrouped.

TO BREAK THE BARLINE BETWEEN GROUPED STAVES

- Click the Staff Attributes Tool. A handle appears on every staff.
- Click the handle of the staff immediately *below* the desired break. The Staff Attributes window appears.
- Click Break Barlines then click OK. You return to the score. The barline is no longer drawn continuously through the space above the staff you clicked. Repeat this process for each grouped staff above which you want the barline to be broken.

TO CORRECT STAFF-GROUPING PROBLEMS

In the course of creating a score, you may have added or dragged staves between existing staves in a group. Such changes could have unexpected results, especially concerning the appearance of your brackets. If a bracket doesn't appear to be drawn correctly, you can usually solve the problem with this technique.

- Click the New Staff Tool. A handle appears on every staff.
- CTRL-click a staff handle. The Staff Usage List appears. By clicking Prev and Next, you can view the *staff usage* information for each staff. This information includes each staff's number (determined by the order in which it was created, not by its position in the score), its Group number (if it's not part of any staff group, its Group is zero), and the distance between the top line of the staff and the top line of the preceding staff (measured in EVPUs, of which there are 288 per inch). You can edit any of this data directly. For example, you can deliberately exclude a staff from a group by changing its Group number to zero, if you wish. You can also use this box to specify a precise vertical position for a staff, by entering a new EVPU value in the Distance box.
- Click Re-sort. If staves were added or dragged "out of order" in the score, re-sorting will clear up the problem.
- Click OK.

Staff lines
A staff can have as many as 100 staff lines, or you can create a staff with *no* lines. You can also set the thickness of all staff lines if you plan to print on a PostScript printer.

If you're interested in making the staff lines closer together or farther apart, use the Reduce/Enlarge Tool to change the overall size of the music, as described in "Reducing/Enlarging—To reduce or enlarge all the music on a page (or the entire piece)." Once that's done, make the notes themselves smaller (or larger) relative to the staff by choosing Font Selection from the Special menu, clicking the Music button, and specifying a slightly smaller (or larger) point size for the music font in which they're displayed.

If you're printing on a non-PostScript printer and you've reduced your music using the Reduce/Enlarge Tool, you may find that the printed staff lines aren't evenly spaced. Unfortunately, this is a limitation of the printer itself.

TO SPECIFY THE NUMBER OF LINES FOR A STAFF

- Click the Staff Attributes Tool. A handle appears on every staff.
- Click the handle of the staff you want to modify. The Staff Attributes window appears.
- Click Special Staff. A box appears, letting you specify the number of staff lines.
- Enter the new number of staff lines. You can enter any number between –12 and 100. If you specify a number above 5, extra lines are added to the bottom of the staff. For numbers between 2 and 4, lines are subtracted from the bottom of the staff. If you type 1, the resultant single staff line is the center line of the normal staff (the B line, if it's the treble clef). If you type zero, no staff lines appear, but Finale draws normal-height barlines (based on the height of a standard five-line staff).

If you're creating a one-line staff, Finale lets you specify *which* "normal" line or space the single line should represent. If you type –1, for example, the single staff line would be the top line of the standard five-line staff. Type –2 to create a single line corresponding to the second line from the top, and so on.

• Click OK twice.

TO SET THE STAFF LINE THICKNESS

If you print on a PostScript printer, you can define the thickness of staff lines. (Finale draws ledger lines, staff lines, and barlines all the same thickness.)

• Choose Format from the Special menu. The Format Variables box appears.

• Click PS Variables. The PostScript Variables dialog box appears.

• Enter a new value in the Def Line Width (float) box. The units are in points, of which there are 72 per inch.

• Click OK twice.

Staff names
You can actually specify two "names" for every staff in a score: a full name (such as "Trumpet 1 in B-flat"), which appears in the first system of the score, and a second name (often abbreviated, such as "Tpt. 1"), which appears on all subsequent systems.

TO NAME A STAFF

• Click the Staff Attributes Tool ⬚ . A handle appears on every staff.

• Click the handle of the first staff you want to name. The Staff Attributes window appears.

• Enter the full name in the Staff Name box. Enter a secondary name in the Abbr. Staff Name box, if desired. The full staff name will appear next to the staff in the first system of the score. The abbreviated staff name will appear next to the staff in all subsequent systems. If you want to name additional staves, click the Next or Prev buttons. The Staff Attributes window will display the information for each successive staff so that you can repeat the procedure.

• Click OK.

TO SET THE FONT FOR STAFF NAMES

• Choose Font Selection from the Special menu. A dialog box appears, listing various elements for which you can set the font.

• Click Name. The Text Font, Size, and Style dialog box appears.

• Set the font, size, and style for the staff names. Click OK twice.

TO REPOSITION STAFF NAMES RELATIVE TO THE STAFF

• Choose Font Selection from the Special menu. A dialog box appears, listing various elements for which you can set the font.

• Click *X Offset* (or *Y Offset*). A box appears, displaying an X next to the beginning of a staff. The X indicates the position of the *first letter* of the staff name.

• Drag anywhere in the window to move the X. Click OK. If you prefer to specify a more precise position, you can enter positioning coordinates (measured in EVPUs, of which there are 288 per inch) directly into the *X Offset* and *Y Offset* boxes. The *X Offset* determines the *horizontal* distance between the *beginning* of the staff name and the *left edge* of the staff. The *Y Offset* determines the *vertical* distance between the bottom edge of the staff name (that is, the *baseline* of the letters) and the *top line* of the staff.

• Click OK.

TO HIDE A STAFF NAME (FULL SCORE)

- Click the Staff Attributes Tool ▣. A handle appears on every staff.
- Click the handle of the staff whose name you want to hide. The Staff Attributes window appears.
- In the Don't Draw section, click Name. Click OK. Finale remembers the staff name, but hides it until you click the Name check box again.

TO OMIT OR REPOSITION STAFF NAMES IN EXTRACTED PARTS

If you want, you can tell Finale not to display the names of the staves in the extracted parts, telling it instead to place the staff name in a header on the first page, for example. (These options are only available when you're extracting parts using the Split Orchestral File command in the File menu.)

- Close any file you have open.
- Choose Split Orchestral File command from the File menu. A list box appears, listing Finale files in the current directory.
- Locate and double-click the name of the full-score file from which you want to extract parts. The Split Orchestral Score into Parts dialog box appears. Specify the pathname (including the filename) and extraction criteria for the extracted parts, as described in "Extracting parts."
- Click OK. The Alternate Page Format for Parts dialog box appears.
- Click Staff Names (in the Don't Draw section of the dialog box). By selecting this check box, you've told Finale not to display the staff name at all when it extracts the part. Continue with the part extraction in the usual way (see "Extracting parts—To extract parts into individual files").
  You can also tell Finale to print the staff name as a *header* on the first page of each extracted part, instead.
- Click Staff Name Headers. The Staff Name Headers dialog box appears.
- Specify the exact position of the staff name header by entering numbers in the X Offset and Y Offset boxes. These numbers, in EVPUs (288 per inch), specify the position of the *first letter* of the staff name header. The Y Offset is measured from the top page margin (a larger *negative* number moves the header farther down the page). The X Offset is measured from the left page margin (a positive number that increases as the header moves to the right on the page).
- Choose a font, size, and style for the header by clicking the Set Font button.
- Click OK. You return to the Alternate Page Format for Parts dialog box. Make your other selections for the part extraction, and click OK. Finale will print the staff name on the first page of each extracted part in the position and font you specified.

Staff size
Any staff within any system can be larger or smaller than the other staves. For specific information on creating a cue staff, see "Cue notes." For information on *staff line* alterations (such as specifying how many, their thickness, and their distance apart), see "Staff lines."

TO REDUCE OR ENLARGE A STAFF

You must be in Page View to reduce or enlarge a staff.

- Click the Reduce/Enlarge Tool ▣.
- Click to the left of the staff you want to resize. A dialog box appears, asking how much to resize the staff.
- Enter the desired reduction or enlargement percentage and click OK. Another dialog box appears, allowing you to specify the region of systems in which you want this staff resized.

• Specify the region of systems you want to affect. To restore the staff to normal size, click the Reduce/Enlarge Tool 🔲 , then click to the left of the staff. When the dialog box appears, click Delete.

Staff transpositions See "Transposing instruments."

Stage directions See "Annotative text."

Start and Stop Times See also "Swing."

Start Times and *Stop Times* refer to the attack and release of a note, respectively. They *don't* refer to the *notated* durations of the notes. Instead, they relate those notated values to the *captured MIDI data*. Captured MIDI data is the MIDI information generated by your original performance in the Transcription Tool, before it's quantized and transcribed into notation.

The terms Start Time and Stop Time refer specifically to the *difference* between the quantized duration of a note (that is, its starting and ending points when given its full notated value) and your *actual* attack and release of the note in your performance. In the figure below, the indicated Start Time is a positive number (because the note was played slightly *after* the beat), and the Stop Time is a negative number (because the note was released slightly *before* the next beat):
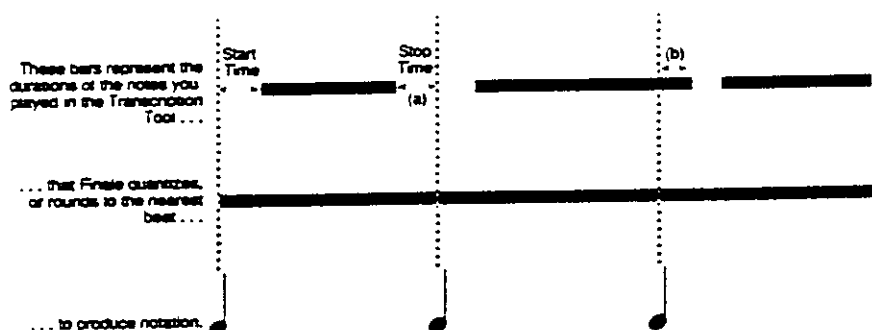
The Start Time is the difference between the actual (performed) attack point and the notated (quantized) attack point. The Stop Time is the difference between the actual (performed) release point and the notated (quantized) attack point. Note that these differences can be either positive or negative; Stop Time (a), above, is a negative number, but Stop Time (b) is positive.

Start and Stop Times are measured in very small rhythmic increments called EDUs (ENIGMA Durational Units), of which there are 1024 per quarter note. (A full table of EDU equivalents appears in Appendix S of *Finale Reference*.) If you hold down each note you play for *precisely* its notated value, with 1024th-beat accuracy, the Start and Stop Times will both be zero, with no difference between the quantized and the actual attack point of the note. Of course, no human can play that precisely.

Staves This entry contains information on adding, moving, spacing, deleting, hiding, and recovering staves. See also "Staff lines," "Spacing," "Staff names," "Staff groups," and "Staff size."

TO ADD A STAFF
• Click the New Staff Tool 🔲 . A handle appears on each staff.
• Double-click where you want the new staff to appear. To *insert* a new staff between existing staves, press Shift as you double-click. Finale will move all existing staves

beneath the new staff downward to make room. (If adding a staff between existing staves disrupts the appearance of your brackets, see "Staff groups—To correct staff-grouping problems.")

TO MOVE OR DELETE A STAFF

- Click the New Staff Tool ▣. A handle appears on each staff.
- Select the handles of the staves to be deleted. Shift-click to select more than one handle, or drag-enclose as many handles as you want. Choose Select All from the Edit menu to select all handles (after which you can Shift-click the handle of any staff to *exclude* it from the selected staves).
- To move the selected staves, drag any selected handle. To remove them, press Delete. If you delete staves by accident, your staves aren't gone forever. See "To recover deleted staves," below.

TO ADD EVENLY SPACED STAVES

- Click the New Staff tool ▣. A handle appears on each staff.
- CTRL-click any staff's handle. The Staff Usage List box appears.
- Click Add. A box appears, asking how many staves you want to add.
- Specify the number of new staves and the amount of space between them. The units in the Topline to Topline Distance box are EVPUs (288 per inch). This number measures the distance from the top line of one staff to the top line of the next. Because you're moving down on the page, the number is negative.
- Click OK.

TO HIDE STAVES (SCROLL VIEW ONLY)

By hiding the staves you're not immediately editing, you can greatly reduce the time it takes the computer to redraw the screen as you scroll through your score.

- Click the New Staff Tool ▣.
- Select the staves you *don't* want to hide. Shift-click to select more than one handle, or drag-enclose as many handles as you want. Choose Select All from the Edit menu to select all handles (after which you can Shift-click the handle of any staff you want to *exclude* from the selected group).
- While pressing CTRL, choose one of the Staff Templates (1 through 4) from the View menu. You're programming a Staff Template that, when selected, will display only the selected staves.
- To view the new configuration of staves, choose the Staff Template you programmed from the View menu. A quicker way is to note the keyboard equivalent for the desired Staff Template (F7–F10). By pressing F6, you restore all staves to the display. By pressing the keyboard equivalent for your Staff Template, you rehide the desired staves. You can repeat this process with other configurations of staves (the other three Staff Templates), which gives you a total of five instantly available staff configurations. Finale *prints* all staves, no matter which ones are visible in Scroll View. To omit staves in printing, see "Hiding staves—To hide staves for printing."

TO RECOVER DELETED STAVES

Finale keeps track of every staff that's ever a part of a piece—even after you delete it. You can restore the music to the piece at any time, even after the file has been closed.

- Choose Data Check from the Edit menu. The Data Check dialog box appears.
- Select Deleted Staves and click Do Selected Action. A dialog box appears, asking what you want to do with the deleted staves. (While Finale's retention of your deleted material serves as an effective safety net while you're working on a file, it also increases the size of your file. If you're certain you're never going to use any of the deleted music again, click Deleted. Finale *permanently* discards all the staves it's been retaining.)

- Click Appended. Finale displays a counter. When the number increases slowly, Finale is reconstructing your deleted staves. As soon as the number starts increasing rapidly, Finale is finished.
- Click the mouse. You return to the Data Check dialog box.
- Click Done. Finale restores the deleted staves to the bottom of the score. You can either copy the music on them to other staves (see "Copying music"), or you can drag the appended staves into new positions in the score (see "To move or delete a staff," above). There's an alternate way to recover a deleted staff if you know its *staff number*. (To find out a staff's number, click the Staff Attributes Tool ⌨, then click the staff's handle. You'll see the staff number at the top of the dialog box.) To recover a staff using this method, create a blank staff in the score. Click the New Staff Tool ⌨, then CTRL-click the new staff's handle and change the Staff Number (displayed in the resulting dialog box) to that of the deleted staff. Click OK. The music from the deleted staff now appears on the previously blank staff. In effect, you've told Finale that the previously blank staff *is* the staff you deleted.

Stems

This entry contains information on stem direction, length, position, thickness, and shape. See also "Stemless notes."

TO FLIP A STEM

- Click the Speedy Note Entry Tool ⌨, and click the target measure. The editing frame appears.
- Use the arrow keys to position the insertion bar on the note whose stem you want to flip. Make certain you're in the correct layer (if you've entered music in Layer 1 and Layer 2) and the correct voice (if you're using Voice 1/Voice 2). Press Shift-apostrophe (') to change layers, and press the apostrophe key alone to change voices.
- Press the L key to freeze the stem up, or Shift-L to freeze it down. When a stem is "frozen" up or down, it's no longer free to change directions if it gets transposed. To restore a stem to its "floating" status, position the insertion bar on the note and press CTRL-L. (If pressing the L key doesn't seem to work, make sure your Caps Lock key isn't down.)
  You can also flip a stem in the Special Tools window. Click the Special Tools Tool ⌨, then click the target measure. Click the Freeze Stem Tool ⌨. A handle appears above and below every stemmed note. Click the appropriate handle (upper or lower) to flip a stem in that direction.

TO FLIP ALL STEMS IN A REGION IN ONE DIRECTION

- Click the Mass Mover Tool ⌨, and select the region to be affected. You can select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, an entire staff by clicking to the left of it, or the entire piece by choosing Select All from the Edit menu. If you want to affect the stems in only one layer, make sure that layer is selected (displays a check mark in the Edit menu), then choose Show Only Current Layer from the Edit menu.
- Choose Modify Entries from the Mass Edit menu. A dialog box appears.
- Click Freeze Stems. Click Up or Down.
- Click OK. All stems in the selected region are now "frozen" in the direction you specified.

TO CHANGE "FROZEN" STEMS BACK TO VARIABLE-DIRECTION STEMS

- Click the Mass Mover Tool ⌨, and select the region to be affected. You can select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, an entire staff by clicking to the left of it, or the entire piece by choosing Select All from the Edit menu. If you want to affect the stems in only one layer, make sure that layer is

selected (displays a check mark in the Edit menu), then choose Show Only Current Layer from the Edit menu.

- Choose Modify Entries from the Mass Edit menu. In the next dialog box, select Strip Reverse, Split, Double and Freeze Stemming.
- Click OK. The stems in the selected region are no longer "frozen" in one direction.

TO CHANGE STEM LENGTH ON A NOTE-BY-NOTE BASIS

- Click the Special Tools Tool 🔲 , and click the target measure. You enter the Special Tools window.
- Click the Stem Length Tool 🔲 . A handle appears on every unbeamed stem.
- Drag the desired handle up or down. As you drag, the stem length changes. To restore the stem to its original length, click the handle and press Delete.
- Close the Special Tools window (Double-click the Control-menu box, upper left).

TO CHANGE STEM LENGTH GLOBALLY

- Choose Format from the Special Menu. The Format Variables dialog box appears.
- Change the numbers in the Length boxes for Stem Variables. These numbers set the lengths of note stems, measured in lines and spaces. (Set the values to 0 if you'd like stemless notes.) The number in the first box is the length of a normal stem. The number in the second box specifies the (usually shortened) length of a stem that's been flipped in the "wrong" direction, on a note one line (or more) away from the middle staff line.

Stem Variables
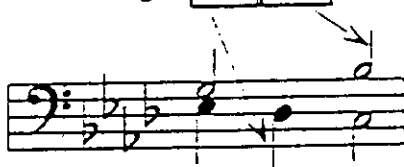
- Click OK.

TO CHANGE THE POSITION OF THE STEM RELATIVE TO ITS NOTEHEAD

There may be times when you want to change the way a stem attaches to its note, especially when you're working with alternate noteheads (slashes, diamonds, and so on).

- Choose Stem Connections from the Special menu. The Stem Connections dialog box appears.
- Select the notehead shape for which you want to specify a new stem connection arrangement by clicking *Symbol*. Double-click the shape from among those displayed in the palette that appears. You return to the dialog box, where Finale displays the System 12-point equivalent of the notehead shape in the *Symbol* text box, regardless of the actual font you've chosen.
- Specify the horizontal and vertical positioning of the stem relative to the alternate notehead. The numbers in the Up Adjust and Down Adjust boxes specify the *vertical* position of the base of the stems on upstemmed and downstemmed notes, respectively, for the alternate notehead shape you've specified. They're in EVPUs (288 per inch), as measured from the stem's position on standard noteheads. A positive number moves the base of the stem upward (thus shortening the total length of the stem).
   The numbers in the Up Push and Down Push boxes specify the *horizontal* position of the stems on upstemmed and downstemmed notes, respectively, for the alternate notehead shape you've specified. They're in EVPUs (288 per inch), as measured from the stem's position on standard noteheads. A positive number moves the stem to the right.

- Click Prev or Next to view the stem connection data for the previous or next notehead shape, respectively. Because adjusting the position of every stem on every alternate notehead slows down your computer, Finale gives you the option of *disabling* the special stem positioning you've specified. You can then enable these special connections just before you proofread and print.

- Click Enable or Disable. If you click Enable, you return to the score, and Finale displays any changes you made to notehead stem connections. A check mark appears beside the Stem Connections command in the Special menu. If you click Disable, you return to the score, where no changes are displayed. Finale *does* remember the stem connection changes you made. To view them, choose Stem Connections again from the Special menu and click Enable.

To CHANGE THE THICKNESS OF STEMS

If you plan to print on a PostScript printer, you can change the thickness (width) of the stems.

- Choose Format from the Special Menu. The Format Variables dialog box appears.
- Click PS Variables. The PostScript Variables box appears.
- Enter a new number in the Stem Line Width (float) box. The units are in points, of which there are 72 per inch. (The default setting for stems is half a point.)
- Click OK twice. You won't see any changes on the screen. Your PostScript printouts, however, will reflect the new stem thickness.

To DRAW COMPLETELY NEW SHAPES FOR STEMS

You don't have to use a simple vertical line for a stem. You can customize stems by using any shape you can draw in Finale's Shape Designer. This feature is particularly useful in creating "splayed" stemming for note clusters—for example, you might have a stem with three spokes extending to a C♭, C, and C♯ struck at the same time.

- Click the Special Tools Tool ▣ , and click the target measure. You enter the Special Tools window.
- Click the Custom Stem Tool ▣ . A handle appears at the base of each stem.
- Click the handle of the stem you want to change. In the box that appears, click Create. The Shape Designer appears.
- Draw the new stem's shape. For instructions on the use of the Shape Designer, see "Shape Designer." As you draw, remember that the round white dot you see in the Shape Designer—the origin—will appear at the *base* of the notehead, where the stem is normally connected.
- When you're finished, exit the Shape Designer by pressing Enter twice. To restore the original stem, click the modified note's handle and press Delete. Once you've created custom stems in a measure, you can copy the stem information to other measures (see below).

To CREATE A DOUBLE OR SPLIT STEM

A double stem is a second stem, pointing in the opposite direction from the note's original stem. A note with a double stem often signifies two voices in unison.

- Click the Special Tools Tool ▣ , and click the target measure. You enter the Special Tools window.
- Click the Double/Split Stem Tool ▣ . A handle appears on every notehead in the measure. Another appears above the staff, and another below.
- To create a double stem, click the handle *below* any note or chord. A second stem appears on the note you clicked, no matter which way the original stem pointed. To restore the note to its original single-stemmed status, click the lower handle again so that it's no longer highlighted.

Once you've created a chord with a double stem, you can create *split stemming* within the chord, giving the effect of a separate inner voice.

- To create a *split stem*, click the handle of each notehead you want to be attached to the *upper stem only*. Each notehead you click joins the upper stem. The remaining notes are attached to the lower stem. To restore a note to its original stem, click the split stem handle again so that it's no longer highlighted.

- Double-click the Control-menu box (upper-left corner). You return to the score.

TO CREATE REVERSE STEMS

A *reverse stem* is one that's drawn on the "wrong" side of its notehead. It's encountered most frequently in conjunction with cross-staff notes. See "Reverse stems."

TO COPY CUSTOM STEMMING TO OTHER MEASURES

- Click the Mass Mover Tool 🔲.
- Choose Move Only from the Mass Mover menu.
- Choose Entry Items from the Mass Mover menu. A box appears, listing individual musical elements.
- Click Stem and Beam Alterations. Click OK.
- Select the source measures (the ones containing the custom stems). You can select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, an entire staff by clicking to the left of it, and additional staves by Shift-clicking to the left of each.
- Drag the first source measure so that it's superimposed on the first target measure. Unless you're dragging to a measure directly above or below the source measure, the How Many Times box appears.
- Specify the number of times you want the stemming information to be copied. Click OK.

TO REMOVE CUSTOM STEMMING FROM A REGION

- Click the Mass Mover Tool 🔲.
- Select the measures in which the modified stems appear. You can select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, or an entire staff by clicking to the left of it.
- Choose Erase from the Mass Edit menu.
- Proceeding through the dialog boxes, click as follows: Only the Selected Items, Entries, Only the Selected Items, Stem and Beam Alterations. Click OK twice.

Stemless notes
Music with stemless notes (noteheads only) appears in plainchant and some hymn scores. In Finale, the stems can be hidden either globally or on a note-by-note basis. See also "Stems."

TO CREATE STEMLESS NOTES GLOBALLY

- Choose Format from the Special menu. The Format Variables box appears.
- Enter zero (0) in both Length boxes for Stem Variables. Click OK. No stems appear anywhere in the file.

TO CREATE STEMLESS NOTES ON A NOTE-BY-NOTE BASIS

- Click the Special Tools Tool 🔲, and click the target measure. You enter the Special Tools window.
- Click the Custom Stem Tool 🔲. A handle appears on each note.
- Click the handle of the desired note. A Shape Selection box appears.

- Click Create. The Shape Designer appears.
- Click OK twice. In effect, you've created a stem that consists of *nothing*.
- Close the Special Tools window by double-clicking the Control-menu box (at upper left). To restore the original stem, click the modified note's handle and press Delete. If you have several measures requiring stemless notes, you can copy the "no-stem" information onto other notes. See "Stems—To copy custom stemming to other measures." See also "Stems—To remove custom stemming from a region."

Step-time music input (Simple Note Entry)
Finale provides several methods for entering music quickly and accurately, one note or chord at a time. You can use either the Simple Note Entry Tool, which doesn't require a MIDI keyboard, or the Speedy Note Entry Tool, which can be used with or without a MIDI keyboard. See "Step-time music input (Speedy Note Entry)."

TO ENTER MUSIC WITH THE SIMPLE NOTE ENTRY TOOL (NO MIDI)

- Click the Simple Note Entry Tool ⬚. The tool palette is replaced by the Simple Note palette. You'll use the note value icons displayed on this palette to specify the rhythmic values of both notes and rests.

  The Simple Note palette and the normal Finale tool palette are actually both part of one continuous scrolling palette. If you position the mouse pointer near the top of the palette and drag upward (or near the bottom of the palette and drag downward) the entire tool palette will scroll.

- Click the desired note (rhythmic value) icon in the palette, then click the staff. A note appears at the pitch you clicked. To build a chord, click another pitch above or below the first note. If you press Shift while clicking the staff, a rest of the selected rhythmic value appears (if you Shift-click a *note*, it *turns into* a rest of the selected rhythmic value). Similarly, if you click an existing rest, it becomes a note (of the selected rhythmic value, at whatever pitch you clicked). In any of these instructions, you can hold down one of the number keys on your keyboard as you click instead of clicking a duration icon. The table below also appears on your Quick Reference Card.

Number Key	Duration
1	64th Note
2	32nd Note
3	16th Note
4	8th Note
5	Quarter Note
6	Half Note
7	Whole Note

- To delete a note you just entered, click its notehead. In other words, if you click a note while the icon of the same duration is selected, the note disappears (if it's part of a chord) or becomes a rest (if it's a single note).
- To change the rhythmic value of a note, click the icon representing the new value, then click the note. To change the rhythmic value of a rest, select the desired rhythmic-value icon, then Shift-click the rest.
- To delete a note, click the Eraser ⬚, then click above or below the note. The note disappears. If you click on a notehead that's part of a chord, only that note disappears. If you click a single *notehead*, it turns into a rest. If you click a rest, it disappears.

- To raise or lower a note by a half step, click the Half Step Up ⬆ or Half Step Down icon ⬇, then click the note. Use the same technique with the Whole Step Up ⬆ or Whole Step Down ⬇ icons to add accidentals that raise or lower a note by *two* half steps (that is, to double-flat or double-sharp a note). If you Shift-click the note, parentheses appear around the accidental.

- To remove any accidentals from a note, click the Remove Accidental icon ⊠, then click the notehead.

- To tie a note to the next one, click the Tie icon ⌣, then click the notehead. To tie every note of a chord, click its stem.
  Click the notehead (for a single note) or the stem (for a chord) to remove the tie.

- To dot a note, click the Dot icon ⊡, then click the note. Click repeatedly to add multiple dots. To remove the dots, click the original rhythmic value icon, then click the note.

- To change a note to a grace note click the Grace Note icon ⊡, then click the note. Click the note again to restore it to full size.

- Click the Exit icon ▣ to return to the full tool palette. See "Slurs," "Crescendo/ Decrescendo," "8va/8vb," and "Dotted lines" for information about the remaining tools in the palette (the Smart Shape Tools). You can rearrange the Finale tool palette (see "Tool Palette" in *Finale Reference*). When you do so, remember that you can include any icons from the Simple Note Entry Tool among the standard tools. For example, you may wish to keep the Eraser or the Slur tools handy in the "main" tool palette.

Step-time music input (Speedy Note Entry)

With the Speedy Note Entry Tool, you can enter music in step-time very efficiently, using the synthesizer to specify the pitch of each note and the computer keyboard to specify the duration.

To ENTER MUSIC WITH THE SPEEDY NOTE ENTRY TOOL (WITH MIDI)

- Click the Speedy Note Entry Tool ▤, and click the first measure into which you want to enter music. The editing frame appears.

- To enter a note or chord, hold down the desired key or keys on the synthesizer and press a number key on the computer keypad corresponding to the desired rhythmic value. The diagram below also appears on your Quick Reference Card. If you press a number key without holding down any synthesizer keys, a rest of the specified value appears. If you want to *insert* a note, chord, or rest before the insertion bar, press Shift as you press the number key. Press the period key to dot the note (you can add multiple dots by repeating this action).
  If the next few notes you want to enter are part of a *tuplet* (a triplet, quintuplet, and so on), press CTRL-number, where 3 means triplet, 5 means quintuplet, and so on. Finale responds by placing a small "3" (or whatever number you pressed) in the corner of the editing frame. The next notes you enter will automatically be grouped into a tuplet. (If you want to create an uncommon tuplet—such as 11 in the space of 2—press CTRL-1. The Tuplet Definition dialog box appears, in which you can specify exactly what kind of tuplet you want to create.) See the Quick Reference Card for the complete Speedy Note Entry Table.

- To change the rhythmic value of a note or rest, position the insertion bar on it and press the number key corresponding to the desired value. Move the insertion bar either by pressing the right or left arrow keys or by clicking the desired note. If Finale presents the "There are too many beats..." alert box when you change a note's value, click "Leave them alone." To prevent it from reappearing before you're ready, exit the editing frame by pressing zero (0) and choose Clip to Measure from the SpeedOptions menu, so that it

no longer displays a check mark. The alert box will now only appear when you try to exit the editing frame of a measure with too many beats, instead of appearing *the moment* you create an extra beat.

- To add a note to a chord, position the insertion bar on it, position the crossbar at the desired pitch, and press Enter. You can also double-click the line or space where you want the new note to appear.

- To remove a note, chord or rest, position the insertion bar on it and press Delete. To remove a single note from a chord, position both the insertion bar and the pitch crossbar on the notehead and press Backspace.

- To change a rest to a note, position the insertion bar on it, position the crossbar at the desired pitch, and press Enter. This method can also be used to add a note to an existing chord. You can change a single note (not a chord) to a rest by positioning the insertion bar and crossbar on it and pressing Backspace.

- To move a note vertically or horizontally, drag it. Press the Shift key as you drag to constrain the dragging direction. If you want to move a whole chord, double-click it. On the second click, keep the mouse button pressed and drag.

- To make a rest draggable, position the insertion bar on it and press the Asterisk (*) key, then drag the rest. Press the Shift key as you drag to constrain the dragging direction. If you press the Asterisk again, the rest will jump back to its default, "frozen" position. Voice 2 rests are always draggable (and the Asterisk will not cause a Voice 2 rest to jump back to its default position). You can't drag a default whole rest.

- To hide a note or rest, position the insertion bar on it and press the letter O key. Press the O key again to display the note or rest again. (If pressing the O key doesn't work, be sure Caps Lock is off.)

- To flip a stem, press the L key (for stem up) or Shift-L (for stem down). This process *freezes* the stem up or down, so that it's no longer free to flip if, for example, it gets transposed. To restore the note to its original "flippable" status, press CTRL-L. (If pressing the L key doesn't work, be sure Caps Lock is off.)

- To raise a note by half steps, position both the insertion bar and the crossbar on it and press the plus (+) key. The minus (−) key lowers the note by half steps. Both keys only apply *accidentals* to an existing note, and won't actually move the note higher or lower on the staff. You can add up to seven sharps or flats to a note.

- To change a note to its enharmonic equivalent, position both the insertion bar and the crossbar on it and press the 9 key. If the pitch crossbar isn't squarely on a *notehead*, Finale changes the "spelling" of all notes in the chord each time you press the 9 key.

- To hide an accidental, position both the insertion bar and the crossbar on it and press the asterisk (*) key. If no accidental is displayed, the asterisk key forces a courtesy accidental to appear. For parentheses, press the P key. If you've hidden an accidental, press the asterisk key again to display it again.

- To create or break a beam, position the insertion bar on the *second* note of the pair and press the slash (/) key. If the notes were flagged separately, they're now beamed. If they were beamed, the beam is broken (and the notes are individually flagged, if they're not beamed to any other notes).

- To switch layers (from Layer 1 to Layer 2, or vice versa), press Shift-apostrophe ('). To switch voices (from Voice 1 to Voice 2, or vice versa), press the apostrophe key alone. For a more complete discussion of multiple voices, see "Multiple voices."

- To advance to the next measure, press the right bracket (]) key. Pressing the left bracket ([) key moves the editing frame to the previous measure. Press Return to move down a staff, or Shift-Return to move up a staff.

To enter music with the Speedy Note Entry Tool (no MIDI)

You can also use the Speedy Note Entry Tool to enter music in step-time without using a MIDI keyboard. Use the number keys on your keypad to specify the durations of notes, just as you normally would. But, to specify the pitches, press the letter keys to move the pitch crossbar instead of using the MIDI keyboard. With practice, this method of "typing in the music" can become extremely quick and precise. You can also use the arrow keys to change pitch.

- Click the Speedy Note Entry Tool ⊇. The SpeedOptions menu appears.
- Choose Use MIDI Keyboard from the SpeedOptions menu. The check mark next to the command should disappear.
- Click the first measure in which notes are to appear. The editing frame appears.
- Press a letter key on your computer keyboard to specify a pitch. Then press a number key (corresponding to a rhythmic value) to create a note. The letter keys on your keyboard have been assigned pitch values in three octaves, as shown in this diagram:
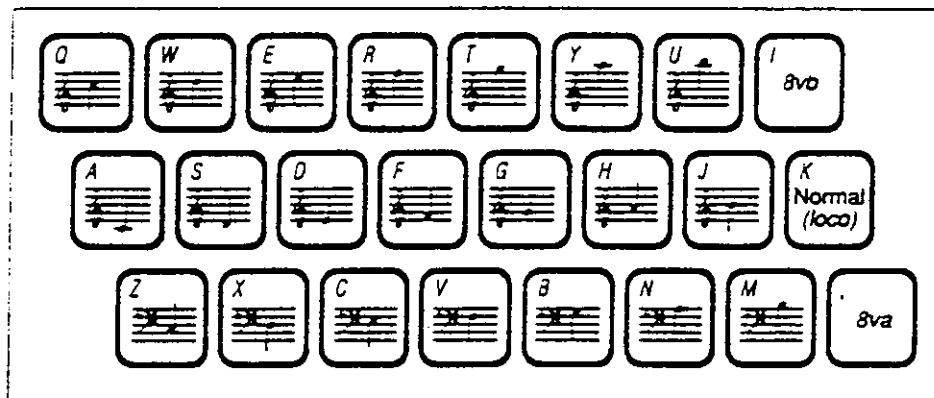
If you want to access a lower register, press the letter I key, which shifts the entire alpha-key pitch mapping *down* an octave. Press the comma (,) key to shift the entire keyboard *up* an octave. In either case, you can restore the letter keys to their original octave by pressing the K key. To help you remember, think of it this way: press the key (I, K, or comma) that's in the row of letter keys you want to contain the *middle* C octave.

For a table showing the assignment of rhythmic values to the number keys, see "To enter music with the Speedy Note Entry Tool (with MIDI)," previous page. These tables also appear on your Quick Reference Card. All other aspects of non-MIDI Speedy Note Entry are the same as described above in "To enter music with the Speedy Note Entry Tool (with MIDI)," including changing a note to a rest, manipulating accidentals, and so on.

Strum See "Rolled chords."

Suppressing staves See "Optimizing staves."

Sustain pedal See "Pedaling."

Swing See also "Set Swing Ratio dialog box" in *Finale Reference*.

The most common convention is to notate "swung" eighth notes as standard eighth notes, with the "Swing" marking above the score (usually on the first page, with the tempo marking). Finale follows this convention in transcribing real-time performances.

To notate swing performances (HyperScribe)

- Click the HyperScribe Tool ⊞ . The HyperScribe menu appears.
- Choose Tap Duration from the HyperScribe menu. The HyperScribe Tap Duration box appears. Select the tap duration and division in the usual way (see "Real-time transcription [HyperScribe]").
- Click Float Quantizing. The Float Quantizing box appears.
- Click Non-timed Tuplet, then click Float. With Floating Quantization turned on, Finale will notate swung eighth notes as normal eighth notes, but will accurately notate triplets if you play them. It's a good idea to tell Finale beforehand exactly how you want the triplets notated—whether or not they should have a bracket or slur, and so on. Instructions for defining the default tuplet appearance can be found under "Tuplets."

To notate swing performances (Transcription Tool)

You can also transcribe swing performances with the Transcription Tool. The process is similar, but the steps are slightly different.

- Click the Transcription Tool ⊞ , then click the measure at which you want the transcription to begin. You enter the Transcription window.
- Record your performance in the usual way. See "Real-time Recording (Transcription Tool)" for complete instructions.
- Choose Floating from the Transcribe menu. The Floating Quantization dialog box appears. (When you specify Floating Quantization, it makes no difference what quantization level is selected in the Transcribe menu.)
- Click Non-timed Tuplet, then click Float. With Floating Quantization turned on, Finale will notate swung eighth notes as normal eighth-note pairs, but will accurately notate any triplets that occur. Again, you can tell Finale beforehand exactly how you want the triplets notated—whether or not they should have a bracket or slur, and so on. Instructions for defining the default tuplet appearance can be found under "Tuplets."
- Continue the transcription process in the usual way. Again, see "Real-time Recording (Transcription Tool)" for complete instructions.

Syncopation
When Finale transcribes a real-time performance, you can specify how it should handle syncopation. For example, depending on the circumstances, you might prefer each of the following notations of the same syncopation:
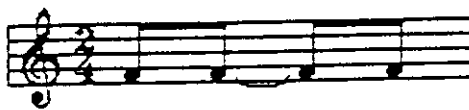
Tied syncopation notation

"Softened" syncopation notation

Finale decides how to notate such syncopations based on two factors: the time signature and the Soften Even Beat Duration Breaks option.

To eliminate tied-note syncopations

If the current meter is based on the quarter note (the time signature has 4 as its denominator), you can ask Finale to write eighth note syncopations as eighth-quarter-eighth rhythms (as shown at right in the example above) instead of two tied eighth note pairs (at left, above). You must specify these options *before* you record.

- Choose Options from the Special menu. A dialog box appears.

- Click Soften Even Beat Duration Breaks. Click OK. You've just told Finale to "soften" syncopations of every *even beat* (second and fourth beats).

  If the meter is quarter-note-based (the time signature has a 4 as its denominator), you can use the same principle to "soften" *quarter note* syncopations—to play a quarter-half-quarter rhythm, for example, as shown in the right example below.
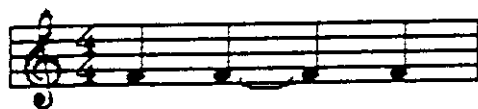
Default quarter-note syncopation   "Softened" quarter-note syncopation

Change the meter to cut time (or another half-note-based meter) before recording. See "Time signatures" for full instructions. Finale will then notate both eighth-note *and* quarter-note syncopations in the "softened" form (as shown at right in the example above.) When you're finished transcribing, you can change the meter back to its original quarter-note-based time signature, if necessary.

System (line) breaks

Finale automatically chooses the most logical measure at which to create system breaks. You can, however, create any system breaks you wish, even if they occur in the middle of measures.

TO CREATE A SYSTEM BREAK

You can specify any measure to begin a new system, no matter what the measure layout may be in other systems.

- Click the Measure Attributes tool 🟦 . A handle appears on each barline.
- Double-click the *right* barline handle of the measure you want to begin a new system. In effect, you click the barline *after* the one that will be at the system break. The Measure Attributes box appears.
- Click Start a New System of Staves. Click OK.
- Choose Recalc Music from the Edit menu. The measure you specified now begins a new system. It will *always* begin a new system, no matter how the page layout may change. Be careful how you use this technique, since it could result in unusual measure widths preceding the affected measure (for example, the preceding single measure could stretch across an entire system).

TO MOVE A MEASURE TO THE PREVIOUS (OR NEXT) SYSTEM

Before you perform this or any significant page layout action, make sure you choose Recalc Music from the Edit menu. (If you're in Page View, make sure you choose Recalc Music while you're viewing the first page, since Recalc Music only affects the region from the current page to the end of the piece.)

- Choose Page View from the View menu if Finale's not already there.
- Click the Mass Mover Tool 🟦 , then click the measure you want to move. If you need to move more than one measure—the last two on a line, for example—click the *first* measure of the group to be moved.
- Press the Up or Down arrow key. If you press the Up arrow key, the selected measure (and any that precede it in the system) move to the previous system. If you press the Down arrow key, the selected measure (and any that follow it in the system) move to the next system. In either case, Finale then recalculates the music automatically .

  This procedure locks the affected measures into *measure groups*. A measure group is a set of measures whose positions are fixed, so that even if the arrangement of other measures changes, those in a group will remain together in the same system. Nor will they be

affected by future measure-rearranging commands such as Recalc Music or even Start a New System of Staves (see "To create a system break," above). The only way to remove measure groups from the piece is to choose Recalc Music from the Edit menu while pressing Shift.

TO SPLIT A MEASURE ACROSS A LINE BREAK

There may be times when you need to break a very long measure in half because it's too long to fit on a single system. The following instructions allow you to create a measure that *may* break at the end of a system, but only if Finale thinks it's necessary.

- Click the Measure Attributes Tool 🔳. A handle appears on every barline.
- Double-click the barline handle at the *end* of the measure you want to split. The Measure Attributes window appears.
- Click Provide Split Points. Click OK. When you return to the score, a new handle appears at the bottom of the barline you clicked.
- Click the new bottom handle on the selected barline. A special "split-point rectangle" appears above the measure.
- Double-click in the split-point rectangle. A handle appears. Drag it horizontally to tell Finale precisely where it *may* break the measure, if necessary. Double-click in as many places as you wish to specify all permissible split points. To remove a split point handle, click it and press Delete.
- Choose Recalc Music from the Edit menu. You won't see the effects of your split point until you choose Recalc Music.

Again, note that this process only creates a *potential* split point. Finale decides whether or not to break the measure when you choose Recalc Music from the Edit menu, based on the current widths of the measures in the system. If you want to *force* Finale to break the measure, you can use the Mass Mover Up/Down arrow technique to force one part of the measure or another onto the previous or next system. See "To move a measure to the previous (or next) system," above.

Systems
A *system* is one line of music across the page, including all the staves that comprise the *staff system*. This entry contains instructions for spacing, indenting, moving, and resizing systems. See "Page layout" for information on setting initial system position and size settings. See "System (line) breaks," "Measure layout," or "Page turns" for further instructions on laying out the measures that constitute systems. For instructions on omitting empty staves from a system (when printing orchestral scores, for example), see "Optimizing staves."

TO CHANGE THE SPACING OF SYSTEMS

The distance between systems (in Page View and in printouts) is determined by the distance between the top of the music in Scroll View and the top of the window. The distance between systems directly affects how many systems will fit on a page.
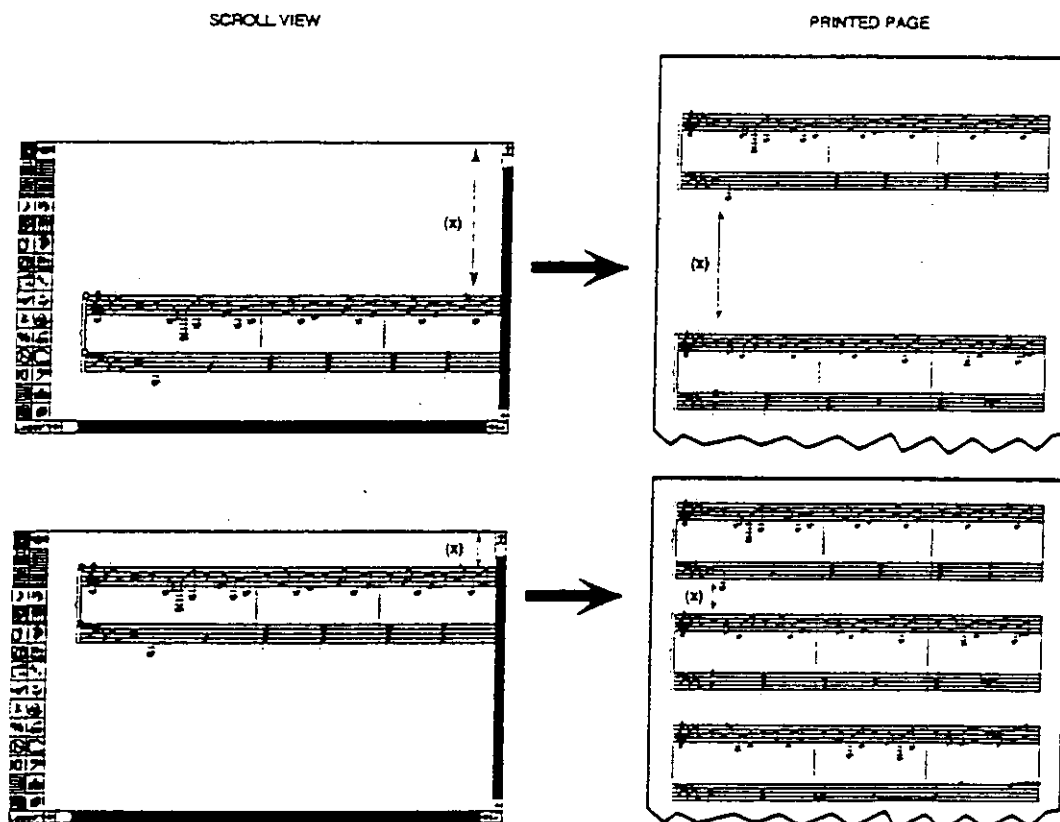
- Choose Scroll View from the View menu, if Finale's not already there.
- Click the New Staff Tool 🔳.
- Choose Select All from the Edit menu. All staff handles are highlighted.
- To increase the distance between systems, drag any handle downward. To decrease the distance between systems, drag any handle upward.

SCROLL VIEW   PRINTED PAGE

The distance between the top staff and the top of the window in Scroll View (x) sets the distance between systems in Page View (and on the printouts). The smaller this distance, the more lines of music will fit on the page.

TO INDENT OR MOVE A SYSTEM

It's common practice to indent the first system of a piece—not only for aesthetic reasons, but often to allow room for long staff names to be written out in full. The following instructions show you how to indent or move a *single* system. If you want to indent *all* systems, a better method would be to simply increase the page margin. See "Margins (page)" for full instructions.

- Click the Page Layout Tool ⊡ . Finale switches to Page View, if it's not already there.

- Click the page containing the system you want to change. You enter the Page Layout window. Make sure Global Adjustment isn't selected in the Page Layout menu.

- Click Staff Systems. Each system is represented by a dotted-line rectangle.

- Drag the upper-left handle of the desired system to the right (to indent the system) or down (to move the system—and all subsequent systems—downward). Drag the lower-right handle to the left (to shorten the system) or down (to create extra space beneath it). Unless you turn off Avoid Margin Collisions in the Page Layout menu, Finale won't let you drag a system on top of another one. Instead of dragging, you can enter EVPU values directly into the number boxes (there are 288 EVPUs per inch). These boxes control the system "margins" as follows:
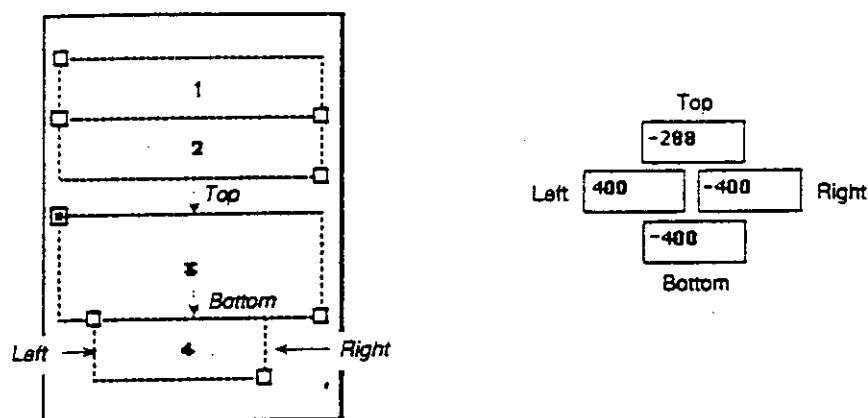
The system margins are the distances between each edge of the system and the page margin (on the right or left) or the next system (above or below). Usually the Top, Left, and Right system margins are zero, because each system neatly abuts the page margins (or the system above it). The bottom system margin—the small amount of space between the bottom of one system and the beginning of the next—defaults to –200 (about 3/4 inch). In the figure above, all of these default values have been changed to illustrate their effects on your page layout.

When you're viewing Staff Systems, you'll notice a boldface number on each system. These are simply to help you identify each system, so that you'll be aware if the system layout has shifted. The number at the bottom of the screen (measured in EVPUs) represents the additional space needed to fit *the next system onto the page*. In other words, if this number is 288, you need to create one more inch of space on the current page in order for the following system (the first one on the next page) to be "pulled" onto the current page.

• To restore a system to its original size and position, click its handle, then click Default. To edit system positioning on another page, click Prev or Next.

• Choose Recalc Music from the Page Layout menu.

• Click OK to exit the Page Layout window.

TO FORCE A SYSTEM ONTO THE NEXT PAGE

Use the following technique if you're laying out the pages of your piece and find that you need to force the last system on one page to the top of the next page.

• Click the Page Layout Tool 🖳 . Finale switches to Page View, if it's not already there.

• Click the page containing the system you want to move. You enter the Page Layout window. Make sure Global Adjustment isn't selected in the Page Layout menu.

• Click Staff Systems. Each system appears, represented by a dotted-line rectangle.

• Drag the lower-right handle of the *second-to-last* system downward just enough to force the last system off the page. In effect, by creating additional space beneath the second-to-last system, you force the last system onto the following page.

• To restore the system you dragged to its original size (thus restoring the target system to its original page), click its handle and click Default.

TO REDUCE OR ENLARGE A SYSTEM

You must be in Page View to reduce or enlarge a system.

- Click the Reduce/Enlarge Tool ⊡ .
- Click to the left of *and between* two staves. A dialog box appears, asking how to resize the system. Click Hold Margins if you want to reduce (or enlarge) the music itself but *not* the system margins, thus increasing (or decreasing) the number of measures that fit on a line. Click Close up Space if you want to tighten up (or expand) the space between this system and the next, proportional to the reduction (or enlargement).
- Enter the desired reduction or enlargement percentage and click OK. Another dialog box appears, allowing you to specify the region of systems to be affected.
- Specify the region of systems you want to affect. The measure widths will probably appear uneven at first.
- Choose Recalc Music from the Edit menu. To restore a system to its original size, click the Reduce/Enlarge Tool and click to the left of *and between* two staves. When the dialog box appears, click Delete.

TO OMIT EMPTY STAVES FROM A SYSTEM (OPTIMIZING)

See "Optimizing staves."

Tablature   You can use Finale to create standard tablature (for guitar or banjo, for example). Tablature is a special kind of notation for plectrum instruments. The Finale method involves *two* staves: the top staff displays the notes in standard notation, and the bottom staff has a staff line for each string of the instrument and displays small numbers instead of noteheads (to indicate fret numbers).

The following instructions show you how to construct a tablature "staff." A complete tablature system *template* (blank Finale file) was provided with your Finale package. It's GTRTABL.MUS in the TEMPLS subdirectory in your FINALE directory. You'll probably find it easier to open this template than to construct a tablature system from scratch.

In the instructions below, the term *notation staff* refers to the upper staff, and *tablature staff* refers to the lower "staff." (In fact, the lower "staff" is composed of several *one-line staves*, placed very closely together—one for each string of the instrument.)

TO CREATE TABLATURE NOTATION

- Notate the instrument's music on a normal staff (the notation staff) in the normal way. If you're using the tablature template provided with your Finale package, you won't need to construct the special tablature "staff". Skip to the instruction marked by the coda sign.

- Click the New Staff Tool ▦ , and CTRL-click the staff's handle. The Staff Usage List dialog box appears.

- Click Add. Another dialog box appears.

- In the Number of Staves text box, enter the number of *strings* on the instrument for which you're creating tablature. For a guitar (six strings), enter 6. For a five-string banjo, enter 5. For a tenor banjo, enter 4.

- In the Topline to Topline Distance text box, enter –28. You're specifying, in EVPUs (288 per inch), the distance you want between each of the resultant "staff" lines (of the tablature staff). The value –28 is only an example, which provides slightly more space between staff lines than the usual staff-line distance (24 EVPUs) to make room for the fret numbers. You can increase or decrease this number. (It's a negative number because it specifies how far *below* the previous staff each new one should appear.)

- Click OK. You return to the score, where you see a tangle of superimposed staves. If there are several staves in the score, the new staves are at the bottom of the system. If the notation staff was the only staff you'd created, the new staves hang just below it, overlapping it slightly.
  Don't panic—and don't click anywhere on the screen yet.

- Click the New Staff Tool ▦ , and carefully drag-enclose the bottom handles—but *not* the top handle, which is the handle of the notation staff. If you're preparing guitar tablature, select the bottom six handles. If you're creating five-string banjo tablature, select the bottom five handles, and so on.
  The handles of the staves that will become the tablature staff should now be highlighted.

- Carefully drag any one of the selected handles downward until they're clear of the notation staff. If the cluster of staves was at the bottom of the score, drag it *upward* until it's just below the notation staff (but leave a space between the staves).

- Double-click any of the selected handles. Double-clicking a selected handle *groups* the staves, so that the barline is drawn continuously through the group of staves.

- Click the Staff Attributes Tool ▣ , and click the top tablature staff's handle (the first handle in the cluster). The Staff Attributes dialog box appears. You're about to make a series of settings in this dialog box that will transform the existing five-line staff into a special one-line staff, representing a single string of the plectrum instrument.

✖In the Don't Draw section of the dialog box, select the following: Score Expressions, Endings and Text Repeats, Measure Numbers, Time Signatures, Clefs, Name.

- Click Special Staff, enter –1, and click OK.

- Click Blank Empty Measures.

- Click Tablature. The Tablature dialog box appears. In this box, you'll specify the pitch of the *open string* that this one-line "staff" represents.

- In the Base Key text box, enter the MIDI key number corresponding to the pitch of the open string whose "staff" you're creating. In the MIDI key numbering system, middle C is 60, C♯ is 61, and so on. The open pitch of the highest guitar string is E above middle C. Therefore, its Base Key value is 76.

Here is a table of the Base Key values for the six "staves" (strings) of a guitar:

Guitar string	"Base Key" number
E string (high)	76
B string	71
G string	67
D string	62
A string	57
E string (low)	52

- In the Y Offset box, enter the descent value for the *fret number*. This number specifies the placement for the fret number Finale will automatically generate. It's the distance, in points (72 per inch), between the top line of the staff (the only line, in this case) and the *baseline* (bottom edge) of the number. You might enter –4 for a standard 10-point font, for example. The idea is to center the fret number vertically on the staff line.

- Click Set Font. Specify the font, size, and style for the fret number, and click OK twice. You return to the Staff Attributes dialog box. You've just completed the adjustments for the first line of the tablature "staff."

- Click Next. You're now viewing the Staff Attributes dialog box for the *second* "staff line" of your tablature staff. Repeat the last eight steps (beginning with the instruction marked by the ✖ symbol) for the remaining "staff lines" of the tablature staff, remembering to enter an appropriate Base Key (open string) value for each.

- Click OK. You return to the score. The tablature staff is now complete. Now copy the music onto it from the notation staff.

⊕ Click the Note Mover Tool ▣ . Choose Copy and Replace from the Note Mover menu.

- Click the first measure of the notation staff that you want to be notated on the tablature staff. A handle appears on each notehead in the measure you clicked.

- Drag-enclose all the handles whose notes you'll want played on the *bottom (lowest) string* of the plectrum instrument. You can also select nonadjacent notes by Shift-clicking their handles.

The selected handles appear highlighted.

- Drag any of the highlighted handles directly down onto the bottom "staff line" of the tablature staff. Finale substitutes a fret number for each of the notes you dragged. The numbers appear in the font and with the placement you specified in the Tablature dialog box.

If the note you drag to the staff line is too low for the string to play, it won't appear at all on the staff line.

- Drag-enclose (or Shift-click) all the handles whose notes you'll want played on the next (second-lowest) string. Drag the highlighted handles directly down onto the next "staff line" of the tablature staff. Repeat the process with the remaining notes in the measure, and with the remaining measures in the piece.

Tempo (for playback)
This entry includes information on setting actual tempos for playback. To create metronome marking tempo indications ($\bullet = 120$), see "Metronome markings." See also "Tempo markings."

For information regarding tempo fluctuations while recording or transcribing a real-time performance in the Transcription Tool, see also "Playback" and "Real-time recording (Transcription Tool)."

TO SET THE INITIAL PLAYBACK TEMPO
The tempo you set with this procedure is the *default* starting tempo that Finale uses when it plays back your score by "reading" the notated, quantized music. If your score is a transcription of a performance you recorded with the Transcription Tool, you also have the option of hearing a playback with the *actual* tempo of the original performance, including any fluctuations, regardless of the default tempo (that you will set in the following instructions). For a more complete discussion of this process (called *capturing MIDI data*), see "Playback."

- Click the Playback Tool 2. The Playback menu appears.
- Choose Playback Settings from the Playback menu. A dialog box appears.
- Enter the starting tempo in the Start Tempo box. The number you type in here is the standard metronome setting (quarter notes per minute).
- Click OK. An identical Start Tempo box also appears in the Parameters dialog box (choose Parameters from the Special menu). You can set the starting tempo in either box.

TO MODIFY THE PLAYBACK TEMPO
At any point in the score, you can insert a functional tempo marking (such as *Presto* or *Adagio*) that will actually change the tempo during playback (see "Tempo markings"). For gradual tempo changes, see also "Accelerando" and "Rallentando."

Tempo markings
A tempo marking in Finale can be purely graphic or it can be defined for playback. Several of these markings have been predefined and stored in a Text Expressions Library. If you load such a library (or if DEFAULT.MUS, which already contains these markings, is in place), you won't have to create the markings.

Once these Text Expressions have been loaded into your file (or created), you can place them into the score as Staff Expressions or Score Expressions.

TO PLACE A TEMPO MARKING IN THE SCORE
- Click the Score Expression Tool (to place the marking in several or all staves) or the Staff Expression Tool (to place it in one staff).
- Click on, above, or below the measure (for Score Expression) or the note (for Staff Expression) to which you want to attach the marking. The Score Expression or Staff Expression Selection box appears.
- Click Create. The Text Expression Designer appears.
- Type the text for the tempo marking. You can enter Allegro, Moderato, or whatever marking you desire. Click Set Font to change the type style (italic, for example). (To create *metronomic* tempo markings, such as $\bullet = 60$, see "Metronome markings.")
- Click OK or Select in each dialog box to return to the score. The tempo indication appears in the score.

To move or delete a tempo marking

- Click the tool (Score Expression 🖳 or Staff Expression 🖳) that you used to create the tempo marking.
- Click the measure (Score Expression) or note (Staff Expression) to which the tempo marking was attached. Its handle appears.
- Drag the handle to move the tempo marking. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it.

To define a tempo marking for playback

- Click the tool (Score Expression or Staff Expression) that you used to create the tempo marking. If you haven't yet placed the marking in the score, click any note (Staff Expression) or measure (Score Expression). When the selection box appears, click the desired marking, click Edit, click Playback, then skip to the instruction marked by the coda sign.
- Click the measure (Score Expression) or note (Staff Expression) to which the tempo marking was attached. Its handle appears.
- CTRL-Shift–double-click the handle. The Playback Definition box appears.
- Click Tempo, then enter a number in the Set To Value box. The number you type into the Set To Value box is a standard metronome setting (in quarter notes per minute). In other words, you've just defined the Text Expression to change the playback tempo to this setting whenever the marking appears in the score.

  The number in the Set To Value box normally refers to a *quarter-notes*-per-minute setting. If the tempo setting you're defining is based on some other note value (a half note, for example), you can let Finale know by clicking Use AuxData 1 (at the bottom of the window). Enter the EDU equivalent of this basic duration value in the Use AuxData 1 text box. There are 1024 EDUs per quarter note, so you'd enter 2048 to indicate a half note pulse. To indicate a tempo of 120 *eighth notes* per minute, therefore, you'd enter 512 in the Use AuxData box and 120 in the Set To Value box.
- Click OK or Select in each dialog box to return to the score. Any time Finale encounters the expression you've just defined when it plays back your score, the tempo will change to reflect the expression's playback definition.

Text blocks

A text block can be almost any piece of text: a note to the conductor, a page of dialogue, performance instructions, or even an extra verse of lyrics. You can place block text, in any font and size, anywhere in the score.

Don't use this method for placing *one-line musical annotations* such as *Allegro*, "With feeling," or other musical markings. Instead, use Score or Staff Expressions for such markings (see "Expressions" or "Tempo markings"). Likewise, don't use this method to create running headers, titles, or other one-line text that is to appear on more than one page. Use the Header/Footer Tool instead (see "Titles" or "Page numbers").

Text blocks in Finale have two elements: the text itself, and the *layout definition* (the *shape* of the text block). Most of the time you'll probably want the layout definition to be a simple rectangle, but the layout definition can be any fully enclosed shape. You can even create a second, *inner* enclosed shape, and "pour" the text around it (to create a donut effect). You can design your own layout definition or, by choosing Load Library from the File menu, you can load TEXTLAY.LIB (text layout definition library) provided with Finale, which contains a selection of predesigned enclosure shapes.

TO CREATE A TEXT BLOCK

- Click the Text Block Tool [图] . There are two kinds of text blocks. The first is a *measure* text block, which you create in Scroll View and remains attached to its measure (even if the measure changes position in the score). The other is a *page* text block, which you create in Page View and remains in a fixed position on a specified page (regardless of how the music around it is repositioned). To add a measure text block, perform the following steps in Scroll View. To add a page text block (which won't show up at all in Scroll View), perform the following steps in Page View.

- Click the measure (or double-click the page, if you're in Page View) where you want to place a text block. The (Measure/Page) Text Block Assignment box appears.

- Click *Text Block/Layout Definition Group ID*. In the next box, click *Text Block*. Finale's text processor appears.

- Type in the text. Your text appears in this window.
  While you should set the primary font for the text block from the Font Selection command (Special menu), you can use the Set Font button within this window to create font changes within the text (you might want to set a stage direction in italics, for example). Select the text whose font, size, or style you want to change by dragging through it with the mouse (so that the desired text is highlighted). Click Set Font. Finale displays the Text Font, Size and Style dialog box, from which you can choose a font variation and click OK. When you return to the text processor, Finale adds some coded font instructions for its own use at the location of each font change—something like "^font (Helv) size (12)." These codes won't appear in the score.

- Click OK. You return to the Text Block/Layout Definition Group box. Finale has placed a number in the *Text Block* box, referring to the text you've just created.

- Click *Layout Definition*. The Layout Definition Selection dialog box appears. If you've loaded a Layout Definitions Library, those enclosure shapes appear in this window. If you'd rather not create your own shape, double-click the one you want, and click OK or Select in each dialog box to return to the score.

- Click Create. In the next box, click *Main Shape*, then click Create. You're now in the Shape Designer, where you can design the invisible enclosure that will contain the text of your text block. In the following steps, you'll create a simple rectangular shape (which is probably what you'll want most of the time).

- Drag the gray handles so that the bounding box is the size and shape you want for your layout shape. If your text block needs to be larger than the Shape Designer display area, click View. You can "zoom out" by typing a smaller percentage into this box, so that your view of the shape will fit on the screen. For a text block that's as large as the page itself, for example, you may want to view at 25%.
  Because the bounding box itself is a rectangle, you don't even need to use any of the Shape Designer drawing tools to create your rectangular layout shape. You can create *any* enclosed shape—a triangle, a circle, a diamond—to contain the text of your text block. For a more complete discussion of the Shape Designer, see "Shape Designer."

- Click OK, then Select. You return to the Layout Definition box, where—by clicking the Text check box—you can see the text in its new layout for the first time. The white round handle moves the shape while you're in this window. The black round handle shows you where the text block's handle will be once it's in the score. Make sure the black handle is on the edge of, or within, the text itself, so that it will be easy to find once it's in the score.
  Click the View button to change the degree of magnification. You may also choose one of the justification options for the text within its rectangle: Left (flush left), Right (flush right), Centered (each line centered within the layout shape), or Full (touching both right and left margins). You can also specify the line spacing (leading). See "Layout Definition dialog box" in *Finale Reference* for a more detailed discussion of the options in this box.

- If you wish to insert a "cutout" shape around which the text will be "poured," click *Cutouts*, then click Create. Again, you're in the Shape Designer, where you can draw a new (smaller) shape that will fit inside the main shape. As before, if the cutout shape is to be a rectangle, you can simply drag the gray bounding box handles so that the bounding box itself is the appropriate size and shape. You don't need to use any of the Shape Designer tools. If your cutout shape is more complex than a simple rectangle, see "Shape Designer" for full instructions.

  When you're designing the cutout shape, keep in mind that the small white circle, the *origin,* will be superimposed on top of the origin of the main shape. When the text appears in the score, it will fill in around the cutout shape. When you're finished designing the shape, click OK twice. You can repeat this process up to three times, creating as many as four cutout shapes within your text block. To specify which of the four possible cutout shapes you want to create or edit, click in the appropriate Cutouts text box before clicking *Cutouts*.

- Click OK or Select in each dialog box to return to the score.

TO MOVE OR DELETE A TEXT BLOCK

Make sure you're in the same view (Page or Scroll) you were in when you created the text block.

- Click the Text Block Tool 🔲 . If you're in Page View, a handle appears on each text block created in this view. If you're in Scroll View, you have to click the measure to which the text block was originally attached. Only then will its handle appear.

- Drag a text block's handle to move it, or click the handle and press Delete to remove the text block. If you're having trouble finding a text block's handle, here are two tips. First, if you're in Page View, the text block in question might be a *measure* text block, created in Scroll View. If that's the case, its handle won't appear at all in Page View. If you're sure you're in the correct view, consider the possibility that the handle is off the screen (because a handle isn't always in the same place as its text). Try "zooming out" by choosing View at 50% from the View menu (or by choosing View at X% from the View menu, and entering an even smaller value). No matter how small the music gets, the square handles are always the same size, so a text block handle should be easy to spot if the music is reduced.

TO MAKE ROOM (BLANK SPACE) FOR A TEXT BLOCK

If you're placing an annotation in a score, you may have to move some music out of the way. You can make an entire page at a time blank, or you can just move some of the music to make room.

- Click the Page Layout Tool 🔲 . Finale switches to Page View, if it's not already there.

- Click the page on which you want to make room. You enter the Page Layout window.

- If you want to clear all music from the page, click Blank Page. Finale pushes all the music from this page onto the next page (and so on for subsequent pages of music to the end of the piece, where it creates a new page to compensate). You can never lose music by clicking Blank Page.

- If you want to make room above, below, or between systems, click Staff Systems. Locate the system just *above* the text block insertion point, and drag its lower-right handle down. When you drag the lower-right corner of a system downward, all systems that follow are pushed downward as well, creating a blank space below the dragged system. Feel free to indent systems, move them up or down, or position them as you want to make room for the text block.

- Click OK.

- Choose Recalc from the Edit menu.

Textbooks See "Annotative text."

Ties You can alter the arc height and endpoints of any tie in Finale. You can also globally change the appearance of all ties.

TO ADD OR REMOVE A TIE (SIMPLE NOTE ENTRY)

- Click the Simple Note Entry Tool ⊡. The tool palette is replaced by the Simple Note Entry Palette.
- Click the Tie icon ⊡, then click the first note of the tied pair.
  A tie appears. If you click the stem of a chord, a tie appears on every note in the chord. If you click a single notehead, only that note receives the tie. (You can remove a tie by clicking the note or chord again.)

TO ADD OR REMOVE A TIE (SPEEDY NOTE ENTRY)

- Click the Speedy Note Entry Tool ⊡, and click the target measure. The editing frame appears.
- Use the arrow keys to position the insertion bar on the first note of the tied pair. You can also click the note or chord instead of using the arrow keys. If only a single note of a chord is to be tied, use the Up or Down arrows to position the crossbar squarely on its notehead. To tie every note in the chord, position the crossbar on its *stem*.
- Press the Equal (=) key. A tie appears. If the insertion bar was on a chord stem, a tie appears on every note in the chord. If the crossbar was on a single notehead, only that note receives the tie. (You can remove a tie by pressing the Equal key again.)

### TO CONTINUE TIES ACROSS SYSTEM BREAKS

See "To correct the playback of ties," below.

TO CORRECT THE PLAYBACK OF TIES

When you first put ties into the score using step-time music entry (Simple Note or Speedy Note Entry tools), Finale considers them purely graphic. Sometimes, ties that extend across a barline don't initially play back correctly (the second note of the tied pair is attacked separately instead of being added to the duration of the first note). And in the event a tie straddles a system line break, the tie isn't always continued onto the second system. The following technique solves both problems at once.

- Click the Mass Mover Tool ⊞, and select the region to be affected. You can select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, an entire staff by clicking to the left of it, or the entire piece by choosing Select All from the Edit menu.
- Choose Check Ties from the Mass Edit menu. When Finale is finished computing, all ties will play back (and be carried over system breaks) correctly.

TO CHANGE THE SHAPE OF A SINGLE TIE

- Click the Special Tools Tool ⊞, and click the target measure. The Special Tools window appears.
- Click the Tie Tool ⊞. A handle appears at each end of every tie in the measure.
- Click the left handle of the tie you want to edit. The Tie Alterations dialog box appears, in which you can specify the tie direction (over or under), the height of its arc, and the positions of its endpoints.
  In cases where a tie straddles a system (line) break, you can also edit the tie's "tail" on the next line—the miniature tie that represents the continuation of the tie—by clicking

the *right* handle. The Tie Alterations box appears, but the changes you make in it only affect the appearance of the tie's "tail," if any. (If one tie ends *and* another tie begins on the same note, click the handle in the usual way to edit the *ending* tie. *Shift-click* the handle to edit the tie that *begins* on the note.)

- To "freeze" the tie up or down, click Freeze Tie. Click either Over or Under. Float Tie is the usual setting for a tie. It means that the tie will arc up or down depending on the stem directions of the notes it's connecting. Freeze Tie Over means the tie will always arc over (usually above stems-down notes), and Freeze Tie Under means the tie will always arc under (usually below stems-up notes).

- Specify the height of the tie's arc by entering a new value in the Y Offset box. Change the horizontal positioning of its endpoints by entering new values in the Start Offset and End Offset boxes. The numbers in these Offset boxes, in EVPUs (288 per inch), specify the amount by which you want to change the *existing* (default) arc height and endpoint positions. These numbers affect the tie as shown below.
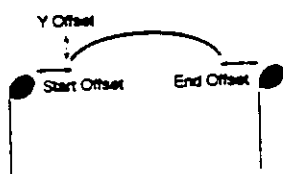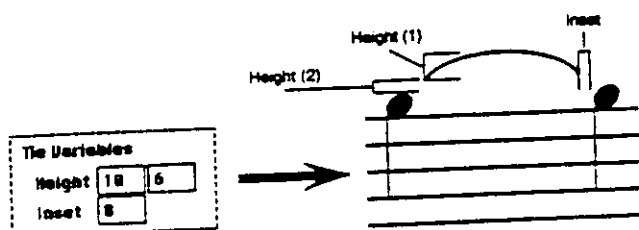

The End Offset is a *negative* number, whose value approaches zero as the tie's right endpoint moves to the right. The Start Offset is a positive number that increases as the tie's left endpoint moves to the right and the Y Offset is a positive number that increases as the arc increases (regardless of the direction).

- Click OK. You return to the Special Tools window, where you see the effects of your editing. To restore the tie to its original condition, click its handle and click Delete.

- Close the Special Tools window by double-clicking the Control-menu box (at upper left). You return to the score.

TO CHANGE THE SHAPE OF ALL TIES GLOBALLY

- Choose Format from the Special menu. The Format Variables dialog box appears.

- Change the vertical positioning of the endpoints and of the arc by editing the numbers in the Tie Variables Height boxes. Specify the horizontal placement of the endpoints by changing the number in the Inset box. The first Height number specifies how high a tie arcs. The second specifies the endpoint's vertical position relative to its notehead. The Inset number specifies the distance between the tie's endpoint and the inside of the notehead to which it's attached. All three numbers are measured in EVPUs (288 per inch) and increase as they indicate a position farther from the notehead (vertically for the Height variables, and horizontally for the Inset variable).

The number in the first Height box specifies the arc height (1) of the ties in your document. The number in the second Height box specifies the vertical position (2) of the entire tie relative to the noteheads; the Inset specifies the horizontal positions of the endpoints.

- Click OK.

TO CHANGE THE THICKNESS AND "TAPER" OF TIES

See "PostScript Variables dialog box" in *Finale Reference* for a discussion of the various technical parameters you can edit, including a tie's thickness, curvature, symmetry, and "taper." These options only affect PostScript printing.

Tiling pages

Tiling pages If you want to print a full-size score (11 by 17 inches, for example), you have a dilemma. If you print on a dot-matrix printer capable of handling large pages, you won't get the crisp, professional look that PostScript printers give. If you print on a PostScript printer, you probably can't print on any paper larger than legal size. If you print on legal-size pages using a PostScript printer and then photocopy these pages—using an enlarging copying machine—onto 11-by-17-inch paper, you reduce the clarity of the original printout.

Finale has a feature that can solve this dilemma: it can automatically *tile* the pages printed by a PostScript printer—in other words, print out several standard-size pages with a portion of the full score page on each, so that you can then tape them together (and, if you wish, photocopy the result onto large single pages).

TO TILE PAGES

- Set the page size of your score to the proper size. Use either the Format command in the Special menu or the Page Layout Tool. (See "Page layout" or "Page size.") When entering the EVPU values for the final, taped-together page dimensions, the key is to subtract *one inch* for each page that will be side-by-side with another. If your score is to be 11 by 17 inches, for example, it will be composed of two letter-size pages taped together:

Therefore, set the page height to the EVPU equivalent of 10 inches (not 11). For the width, enter the equivalent of 15 inches (remember, you're subtracting one inch for *each* page that will by side-by-side). Since there are 288 EVPUs per inch, that 10-by-15-inch printing area equals 2880 by 4320 EVPUs.

By subtracting one inch from each dimension in this way, you provide for a half-inch margin of overlap on each page, so that the resultant pages will be easier to tape together.

- Choose Recalc Music from the Edit menu.
- Choose Compile PostScript listing from the File menu. A dialog box appears.
- Click Tile Pages. Specify the page range and the size of the component pages (Letter or Legal) on which you'll be printing. Click Center Music on Page if you want the printed image of the full score page to be centered on the taped-together physical page. If you don't specify this option, the music will appear beginning in the upper-left corner of each full-size page, requiring you to cut off the extra paper on the right and bottom margins, if necessary.
- Click Compile. To print the resultant compiled file, you'll need a downloading program. For more information, see "PostScript." For best results, have a paper cutter on hand to trim the default quarter-inch margins created by a PostScript printer on each page that you'll be taping together.
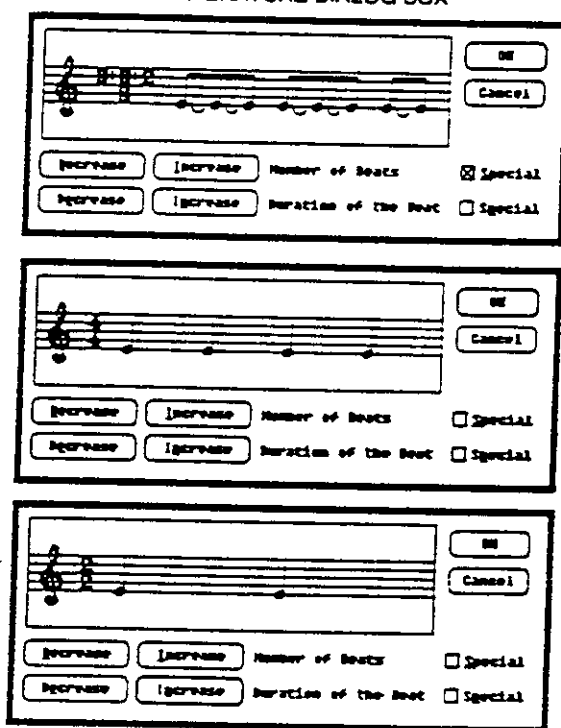
Time signatures

See also "Hiding time signatures," "Compound meters," "Cut time," and "Composite meters."

TO CHANGE THE TIME SIGNATURE

- Click the Time Signature Tool ▦ . A handle appears on each barline.
- Click the handle of the barline where the time will change. The Time Signature dialog box appears.
- Click the Increase and Decrease buttons for the numerator and denominator until the window displays the desired time signature. The upper Decrease and Increase buttons govern the numerator (upper half, or beats per measure) of the time signature, the lower ones govern the denominator (lower half, or basic rhythmic value).

The way you define your meter is important, because it also governs *beaming* in the region it affects. In the case of cut time, you should set the buttons so that the display shows two half notes (eighth notes will be beamed together in groups of four). Unless you tell it otherwise, Finale displays the common-time symbol C instead of 4/4, and the cut-time symbol ¢ instead of 2/2. *

TIME SIGNATURE DIALOG BOX
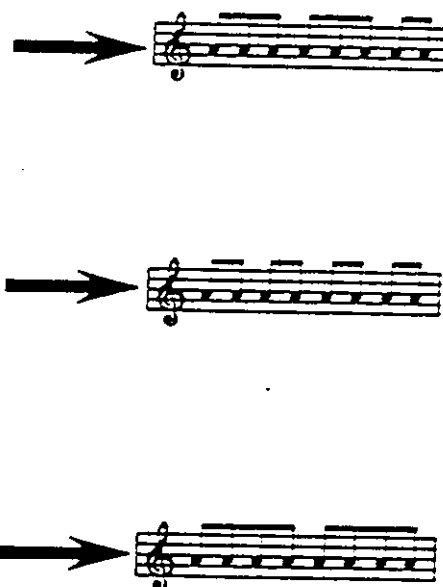
BEAMING PATTERNS

The time signature you establish also affects the beaming patterns of any new music you enter. You can, of course, change the beaming pattern of existing music; see "Beaming—To rebeam a selected region."

If you're building a *composite* meter, click the upper or lower Special button. A dialog box appears, where you can create a composite numerator (such as 3 + 3 + 2) or denominator (such as 4 + 8). For further details, see "Special Time Signature Upper Half dialog box" and "Special Time Signature Lower Half dialog box" in *Finale Reference*. When you return to the Time Signature dialog box, Finale places an X in the Special check box you clicked.

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* If you don't want Finale to substitute the C for 4/4 or the ¢ for 2/2 time signatures, choose Options from the Special menu and click Abbreviate Standard Time or Abbreviate Cut Time, respectively (so that these items aren't selected).

- Click OK. A box appears, asking what region of measures you want to be affected by the meter change. The options are This Measure Only, This Measure Through Measure __ (which lets you specify the last measure of the time change), or This Measure Through End of Piece.
- Specify the range of measures you want to be affected by the meter change. You return to the score.

TO CREATE MULTIPLE SIMULTANEOUS TIME SIGNATURES

This subentry contains instructions for changing the *actual* time signature independently for different staves.

- Choose Floats from the Special menu. A dialog box appears.
- Click Float Time Signatures. Click OK.
- Click the Staff Attributes Tool ⌷. A handle appears on each staff.
- Click the handle of the first staff whose meter you want to change. The Staff Attributes box for the selected staff appears.
- Click Float Time Signature. You need to specify Float Time Signature for each staff that will be in an independent meter. If you have several staves to prepare this way, stay in the Staff Attributes box, and scroll between staves by clicking the Prev and Next buttons.
- Click OK. Now you can set the time signature as described above (see "To change the time signature") independently for each staff you've prepared this way.

Time-stamping   If you create a *time stamp*, Finale will automatically print the current time on your file each time you print it. To add a time stamp, you'll use the Header/Footer Tool in Page View.

TO CREATE A TIME STAMP

- Click the Header/Footer Tool ⌷. Finale switches to Page View, if it's not already there.
- Double-click the page. The Header/Footer Designer appears. (If you want the time to appear anywhere on the *bottom* half of the page, click Footer instead of Header in the next instruction.)
- Click Header. Select your page incidence and justification preferences. The page incidence options are All Pages, Only on This Page, and so on. The Justification options are Left (flush with the left margin, a handle on its left end), Right (flush with the right margin, a handle on its right end), or Centered (centered between the margins, a handle in its center).
- Type a number sign (#) in the text box. To type the number sign, press Shift-3. You can also combine the time stamp with other text. For example, you could also type "Final Movement, printed at #."
- Click Replace Number Sign with the Current Time. To stamp the current date instead, click Replace Number Sign with the Current Date.
- Click Set Font, and choose a font, size, and style for the header. Click OK.
- Click OK to exit the dialog box. The time stamp appears on the pages you specified, with the justification you specified, but it will probably need vertical adjustment.

TO MOVE OR DELETE A HEADER OR FOOTER

- Click the Header/Footer Tool ⌷, if it's not already selected. A handle appears on every header and footer.
- Drag the header or footer's handle to move it. Select the handle and press Delete to remove it. Finale updates the time whenever it redraws the screen.

TO INCLUDE SECONDS IN THE TIME STAMP

Finale normally displays a time stamp in the form "1:15 PM". If you prefer, you can tell Finale to include the seconds too, as in "1:15:00 PM".

- Create the time stamp in the usual way. See "To create a time stamp," above.
- Choose Options from the Special menu. The Options dialog box appears.
- Click Include Seconds in Time. Click OK. The time stamp now includes seconds. Each time you select the time stamp's handle by clicking it, Finale updates it to the current time.

Title page
This entry contains instructions for creating a separate title *page* with no music on it. If you want the title to appear at the top of the first page of *music* instead, see "Titles."

TO CREATE A TITLE PAGE

- Click the Page Layout Tool 🔲 . Finale switches to Page View, if it's not already there.
- Click the first page. You enter the Page Layout window.
- Click Blank Page. When you click Blank Page, Finale makes the displayed page blank by "pushing" the music onto the next page (and so on for subsequent pages of music to the end of the piece, where it creates a new page to compensate).
- Click OK.
- Click the Header/Footer Tool 🔲 . You're about to create the first piece of text (title) information. As long as the titles you're creating are not more than a single line long, this technique is the best method. If you need to place longer pieces of text—such as a set of lyrics or a note about the composer—use a Text Block instead and be sure to create it in Page View. See "Text blocks."
- Double-click the page. The Header/Footer Designer appears.
- Type the title into the text box.
- Click Only On This Page and your choice of Justification. The three Justification options are Left (flush with the left margin, a handle on its left end), Right (flush with the right margin, a handle on its right end), or Centered (the title appears centered between the margins, a handle in its center).
- Click Set Font, and choose a font, size, and style for the header. Click OK.
- Click OK to exit the Header/Footer Designer dialog box. The title appears on the first page with the justification you specified, but it will probably need vertical adjustment (see below). Repeat the process with any other titles you want to appear on the title page.

TO MOVE OR DELETE A HEADER OR FOOTER

- Click the Header/Footer Tool 🔲 , if it's not already selected. A handle appears on every header or footer.
- Drag the header or footer's handle to move it. Select the handle and press Delete to remove it. If a part of the header or footer remains on the screen, choose Redraw Screen from the View menu.

Titles
A title is created and positioned with the Header/Footer Tool. If you want to create the title on a page of its own, see "Title page."

TO CREATE EXTRA ROOM AT THE TOP OF THE PAGE

Depending on the format of your piece, you may want the music on the first page to begin slightly lower on the page to allow room for a title space.

- Click the Page Layout Tool 🔲 . Finale switches to Page View, if it's not already there.
- Click the first page. You enter the Page Layout window.

- Click Staff Systems. Finale displays the systems on the first page, representing each as a dotted-line rectangle with handles at the upper-left and lower-right.
- Drag the upper-left handle of the top system downward. When you drag the top system down, all subsequent systems move down on the page as well. If you want more precision, try this: Click the top system's handle, then enter a lower (larger negative) value in the topmost text box at the right side of the screen. These numbers represent the system margins, measured in EVPUs (288 per inch). To see the effects of the number you entered, click the screen in the music display area.
- Click OK.

TO ADD A TITLE

- Click the Header/Footer Tool ⊡ . Finale switches to Page View, if it's not already there.
- Double-click the page. The Header/Footer Designer appears. (If you want the title to appear toward the *bottom* half of the page, click Footer instead of Header.)
- Type the text for the title in the text box.
- Click Only On This Page, and your choice of Justification. The three Justification options are Left (flush with the left margin, a handle on its left end), Right (flush with the right margin, a handle on its right end), or Centered (centered between the margins, a handle in its center).
- Click Set Font, and choose a font, size, and style for the header. Click OK.
- Click OK in the Designer dialog box. The title appears on the first page with the justification you specified, but it will probably need vertical adjustment.

TO MOVE OR DELETE A HEADER OR FOOTER

- Click the Header/Footer Tool ⊡ , if it's not already selected. A handle appears on every header or footer.
- Drag the header or footer's handle to move it. Select the handle and press Delete to remove it. If a part of the header or footer remains on the screen, choose Redraw Screen from the View menu.

Transcribing
For information on transcribing a real-time performance, see "Real-time transcription (HyperScribe)" or "Real-time recording (Transcription Tool)." If you want to transcribe a piece that's currently stored in a sequencer, see "Transcribing a sequence."

Transcribing a sequence
If you're interested in notating a performance that's currently stored in a hardware or software sequencer, you have several options. If your sequence is stored in a sequencing program (software), you can usually transfer it to Finale by saving it as a standard MIDI file. Read your sequencer's instructions, then see "MIDI files."

If the sequence is stored in a physical (hardware) sequencer, or if you have a second computer equipped with its own MIDI interface, you can plug the sequencer (or computer) into your computer and play the sequence into the Transcription Tool window. As far as Finale is concerned, the MIDI signals it's receiving in this way are no different from the ones you produce when you play your synthesizer. The Transcription Tool can record tracks simultaneously from as many MIDI channels as you like, and then transcribe up to four channels at a time.

TO TRANSCRIBE A SEQUENCE USING THE TRANSCRIPTION TOOL
For a more complete discussion of the Transcription Tool, see "Real-time recording (Transcription Tool)."

- Create the empty score, including meter, key signature, and staff configuration. You can transcribe onto one or two staves at a time.
- Click the Transcription Tool ⊞, then click the measure at which the transcription will begin. You enter the Transcription window. If the sequence is capable of providing a MIDI "click track," or if you can add a separate track consisting solely of quarter-note (or some other value) "clicks" on a single pitch, you'll save time in the long run, because Finale will be learning where the beats fall at the same time as it's "hearing" the music. If your sequence does *not* contain a click track, skip to the instruction marked by the coda sign.
- Choose Click Input from the Time Tag menu. Specify the incoming MIDI signal that will serve as the click. The easiest way to enter the click description is to click Listen to MIDI, then play the click itself. If the click itself is to be a pitch, make sure it's either a very high or very low pitch—one that won't be mistaken for a note in your sequence.
- Click Ignore First Data Byte (so that it's no longer selected). This check box tells Finale whether or not it should be particular about the MIDI signal it's interpreting as Time Tag information—whether or not to consider *any* key (or controller) to be a Time Tag. You *don't* want this option selected, because you're going to record both Time Tags and keyboard notes simultaneously.
- Click OK. If the clicks will be "tapping" any duration other than a quarter note, be sure to let Finale know by choosing the correct duration value from the "First Tag is" section of the Time Tag menu.
- Click Record under the words Time Tag. If the sequence won't be providing a click track, leave Play selected under the words Time Tag (you can add the Time Tags separately after you've recorded the sequence). See "Real-time recording (Transcription Tool)."

Time Tags
- ⦿ Record
- ◯ Play
- ◯ Set to [   ]

- Click Wait Till. Finale is now in "pause" mode, where it will remain until it receives the first MIDI signal from the external sequencer.
- Play the sequence. Click anywhere (except on a button) to stop recording. When you stop recording, you'll see your music expressed as a sort of scrolling horizontal bar graph. The length of the bars indicate the durations of the notes, and their position in relation to the piano keyboard (left side of the screen) indicates their pitch. If you recorded the Time Tags ("click track") as the sequence played, you'll also see small note icons at the top of the screen, indicating the placement of the beats.
- To play your performance back, choose Select All from the Edit menu. Under the word Keyboard, click Play, then click Start. You hear the sequence played back. Finale also records the MIDI channel information from the sequence. When played back, Finale transmits the MIDI signals over the same channels on which they were received. Keep this in mind if you're having trouble hearing all the tracks in the sequence when you play it back.
- If the sequence didn't contain a click track, add Time Tags. See "Real-time recording (Transcription Tool)—To record Time Tags."
- Select the MIDI channel and pitch information to be transcribed by choosing Transcription Filter from the Transcribe menu. The Transcription Filter dialog box appears, in which you can specify the range of notes within each MIDI channel you want transcribed.

For example, if your sequence contained tracks recorded on several different MIDI channels, you can now transcribe them onto individual staves, one at a time. If the flute and clarinet were both on channel 2, for example, enter 2 in the first MIDI channel box. Then, to make sure you only transcribe the flute part, enter the highest and lowest notes of the flute's register in the Key Range: Low and High boxes. (To enter this information by *playing* it, click Listen to MIDI, play the lowest note, then the highest note of the range you want to specify.)

You can also use this high note/low note filter in reverse. If, for example, you specify a Low note that's *higher* than the High note, you'll have defined a range of notes you want to *omit* from the transcription. Only notes lower or higher than the specified range will be transcribed.

- Click Use Filters. You've just told Finale, in terms of MIDI channel and range of notes, what it should extract from the complete sequence for notation onto its own staff. When you're finished transcribing this element, you can return to the Transcription window, choose Transcription Filter again, and specify the next MIDI channel setting to extract the next "track" out of the sequence, and so on, until you've filtered out each individual "track" from the sequence.

- Choose Assign Measure Tags from the Time Tag menu. For each downbeat, Finale automatically puts a letter M above the Time Tags in the Time Tag display area, according to the time signatures in the score itself.

- If you're transcribing onto two staves, choose a split option (Split Point or Hand Width) from the Transcribe menu. If you choose By Split Point, a box appears. Enter the number of a synthesizer key whose pitch you want to designate as the dividing point between upper staff (usually treble clef) notes and lower staff (usually bass clef) notes. (Or, if you prefer, click Listen to MIDI and *play* the key.)

  If you choose By Hand Width, Finale will split a two-handed performance onto the correct staves (treble clef or bass clef) by *tracking the positions of your hands* as they move up and down the keyboard. Enter (or, by clicking Listen to MIDI, play the interval of) the largest hand span (in half steps) that occurs in the sequence. As long as there's a discernible gap between your two hands, Finale can track a changing split point automatically. Click OK to exit either dialog box.

- Specify a quantization value from the Transcribe menu. Choose the smallest *predominant* durational value in the piece. If there are occasional smaller values (for example, if there are triplets or sixteenth notes in a piece where the predominant duration is the eighth note), you might opt for Floating Quantization instead of choosing a static quantization level.

- If necessary, choose Floating from the Transcribe menu. A dialog box appears, listing three Floating Quantization options. The first, Timed Non-Tuplet, tells Finale to watch out for *non-tuplet* subdivisions of the "main" quantization value. If you're quantizing to eighths, Timed Non-Tuplet will correctly notate the occasional sixteenth notes. The bottom choice, Non-Timed Tuplet, tells Finale to assume that any values smaller than the quantization value are tuplets, no matter how unevenly they were played. The middle setting, Timed Tuplet, distinguishes between tuplet and non-tuplet rhythms, based on the timing of the notes that fell between two Time Tags.

  For a more complete discussion of Floating Quantization, see Tutorial 5 of *Learning Finale*. For details on the remaining elements of the Floating Quantization dialog box, see "Floating Quantization dialog box" in *Finale Reference*. For further information on Floating Quantization settings, see Appendix 3 in *Finale Reference*.

- Choose Expand Minimums from the Transcribe menu. If you don't choose Expand Minimums, any note whose duration is less than the specified quantization value will be transcribed as a grace note.

- If you like, click Capture Performance, Capture MIDI Xpression, and Capture Time Dilation. (If you click Capture Time Dilation, click Absolute when the dialog box appears.)

These options tell Finale to remember the precise "feel" of your original sequence, and to keep this data handy for playback once you return to the score. Performance Data is key velocity, and Start and Stop Time information; MIDI Xpression is controller data (aftertouch, pedal, pitch bend, and so on); and Time Dilation refers to tempo fluctuations, including ritards and accelerandi. If you don't choose these options, then when you play back the transcribed music from the score, Finale will simply play the notated version—exactly as written, but expressionless and "square"—instead of re-creating the human "feel" of your original sequence.

- Click the Transcribe button. If the results aren't perfect, remember that your performance is still intact, in the Transcription window. Click the first measure of the transcribed notation to flip back into the Transcription mode. Correct any split point or quantization settings, and click Transcribe again. If you don't get good results and you can't figure out what's wrong, read the section called "Real-Time Transcription Settings Guide" in Appendix 3 of *Finale Reference*.

  If you have occasional split point errors in the transcription, you can either change the split point settings in the Transcription Window and try again, or you can correct the errors directly in the score. See "Real-time transcription (HyperScribe)—To correct split point errors."

Transposing

If you want to transpose a passage by a specified interval (without changing the key signature), see "Transposing: by interval." To transpose the key of a piece (or part of a piece), see "Transposing: changing key." For information on *transposing instruments* (trumpet, clarinet, and so on), see "Transposing instruments."

Transposing: by interval

This entry discusses the transposition of the music in selected measures up or down. If you're interested in transposing the key of a section, see "Transposing: changing key." If you want to find out about *transposing instruments*, see "Transposing instruments."

TO TRANSPOSE A REGION DIATONICALLY OR CHROMATICALLY

- Click the Mass Mover Tool 🖳 , and select the region to be affected. You can select one measure by clicking, additional measures by Shift-clicking, a screenful by drag-enclosing, an entire staff by clicking to the left of it, or the entire piece by choosing Select All from the Edit menu. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling.

- While pressing the 5 key (for a diatonic transposition) or 6 key (for a chromatic transposition), double-click the highlighted area. The Transposition dialog box appears. (You just used a *Metatool*—a one-key equivalent for a longer procedure. By pressing 5 or 6 while double-clicking, you accomplish the same thing as choosing Modify Entries from the Mass Edit menu, then clicking Transpose in the subsequent dialog box.)

- Specify the desired transposition, including Up or Down. If you want to transpose the selected region by more than an octave, enter the number of octaves Finale should add to the specified smaller interval transposition. (For example, the interval of a tenth is a third plus one octave.)

  If you're performing a chromatic transposition, certain options on the right side of the box become available. For example, if you click an interval of a Fifth, you can select the Perfect, Augmented, or Diminished option.

- Click OK.

Transposing: changing key

This entry provides instructions for transposing the key of a piece (or part of a piece). If you want to transpose a passage without changing the key signature itself, see "Transposing: by interval." If you want to find out about *transposing instruments*, see "Transposing instruments."

There are three ways to transpose your music into a different key. Each has a slightly different conceptual slant. Only the third method is appropriate for changing *all* key signatures in a piece at once by an equal interval—to add a sharp to every key signature in the piece, for example.

TO TRANSPOSE A PIECE (KEY SIGNATURE TOOL)

Use this method if you're transposing an entire piece. If you're only transposing one section, use this method if you know the measure number of the end of the transposition.

- Click the Key Signature Tool 圖. A handle appears on each barline.
- Click the handle of the first barline of the measure where the new key is to begin. The Key Signature dialog box appears.
- Scroll to the desired new key signature. Click OK. A box appears, asking you to specify the region of music to be affected, and how you want the new key to affect any existing notes.
- Choose Transposed, Held Modal, or Held Chromatic. If you choose Transposed, the music following the key change is transposed into the new key. If you choose Held Modal, the notes will remain on the same *line or space* they were on before the key change, but no new accidentals will appear. in other words, their actual pitches may change. (An F♯ in the key of D will become an F♮ in the key of D♭, because it's on the same place in the staff.)

  If you choose Held Chromatic, the *pitches* will remain exactly the same as they were before the key change—in other words, you're just changing the key signature without affecting the existing notes at all. (The existing notes will be renotated according to the new key. A G♯ in the key of E will become an A♭ in the key of E♭.)

- Specify the range of music to be affected. Enter the number of the last measure to be affected in the "This Measure Through Measure..." box before clicking the check box if you want to affect only a section of the music; click This Measure Only; or, if you want the new key change to affect all measures to the end of the piece, click "This Measure Through the End of the Piece."

TO TRANSPOSE A PIECE (MASS MOVER TOOL)

Use the Mass Mover Tool to select a section of music for transposition. It's the best option to use if you're not sure of the measure numbers of the measures to be affected.

- Click the Mass Mover Tool 圖, and select the region to be affected. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or choose Select All from the Edit menu to select the entire file. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling.

  This process will change the key *in every staff*, no matter how many staves are selected.

- Choose Change Key from the Mass Edit menu. The Key Signature dialog box appears.
- Scroll to the desired new key signature. Click OK. A box appears, asking how you want the new key to affect any existing notes.
- Click Transposed, Held Modal, or Held Chromatic. If you choose Transposed, the music following the key change is transposed into the new key. If you choose Held Modal, the notes will remain on the same *line or space* they were on before the key change, but no new accidentals will appear. In other words, their actual pitches may change. (An F♯ in the key of D will become an F♮ in the key of D♭, because it's on the same place in the staff.)

If you choose Held Chromatic, the *pitches* will remain exactly the same as they were before the key change—in other words, you're just changing the key signature without affecting the existing notes at all. (The existing notes will be renotated according to the new key. A G♯ in the key of E will become an A♭ in the key of E♭.)

To TRANSPOSE A REGION BY A SPECIFIED NUMBER OF SHARPS OR FLATS

Under certain circumstances, you may want to use this third method of changing the key of a region or a piece. This technique lets you specify a number of sharps or flats you want to add to or subtract from *all* keys in the selected region, preserving any existing key changes within the piece, but changing each by the same interval.

- Click the Mass Mover Tool 🔲 , and select the region to be affected. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or choose Select All from the Edit menu to select the entire file. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling.
- Double-click the highlighted area. The Mass Edit box appears.
- Proceeding through the dialog boxes, click as follows: OK, Measures. Key Signatures, Add To. If you were to click Set To, Finale would display the standard scrolling Key Signature box, letting you set all key signatures in the desired region to a single key signature.
- Enter the number of sharps (a positive number) or flats (a negative number) to add to existing key signatures. If an existing key signature is a sharp key, a negative number here will *subtract* sharps, moving through the circle of fifths until all the sharps are gone (key of C), then adding *flats*, if necessary. A *positive* number can be used in the same way to subtract flats (then add sharps, if necessary).
- Click OK. Click Transposed, Held Modal, or Held Chromatic. For a discussion of these options, see the last step in "To transpose a piece (Mass Mover Tool)," above.
- Click OK in each dialog box to return to the score.

Transposing instruments
Any staff can be defined to have any instrument transposition. For example, a trumpet staff can be notated up a whole step, yet Finale will still play the music at concert pitch. While you're working on the score, you can be looking at the instrumental staves either in their transposed or concert-pitch forms.

To DEFINE A STAFF TRANSPOSITION
- Click the Staff Attributes Tool 🔲 . A handle appears on each staff.
- Click the handle of the staff to be transposed. The Staff Attributes box appears.
- Click Transposition. The Staff Transposition box appears.
- Specify the desired transposition. The most common transpositions are listed in the dialog box. For example:

For this instrument...	...choose this transposition
B♭ trumpet, clarinet, soprano saxophone	Up M2, Add 2 Sharps
D trumpet	Down M2, Add 2 Flats
E♭ clarinet, sopranino sax	Down m3, Add 3 Sharps
Alto flute in G	Up P4, Add 1 Flat
Horn in F (French horn), English horn	Up P5, Add 1 Sharp
Alto saxophone	Up M6, Add 3 Sharps
Tenor saxophone, bass clarinet	Up M9, Add 2 Sharps, Treble Clef
Baritone horn (when in treble clef)	Up M9, Add 2 Sharps, Treble Clef
Baritone saxophone	Up P8+M6, Add 3 Sharps, Treble Clef

You can also create your own instrument transpositions for less common instruments, or to accommodate synthesizer patches with unusual transpositions. Use the Key Alter box to tell Finale how to modify the key signature. A positive number in this box adds sharps to the key signature (or subtracts flats), and a negative number adds flats (or subtracts sharps).

You must also enter a number in the Interval box, telling Finale how to transpose the notes. The number here specifies the degree of diatonic transposition. To create a part that's notated higher than it sounds, use a positive number; lower than it sounds, use a negative number. Keep in mind that zero means no transposition, so 1 means up a step (an interval of a second), 2 means up a major third, and so on. To transpose the part down an octave, for example, you'd enter –7. Here are some examples of transpositions you could create:

Clarinet in A, oboe d'amore	Key Alter: –3	Interval: 2
Piccolo	Key Alter: 0	Interval: –8
Glockenspiel	Key Alter: 0	Interval: –14
String or electric bass, guitar	Key Alter: 0	Interval: 7

Finally, note that you can specify a clef for this staff to display in its transposed (or extracted part) form, which can be *different* from the clef used in the full score. To specify this "transposition" clef, click "Set To Clef", and double-click the desired clef from the palette.

• Click OK. You return to the Staff Attributes window. If there are other staves for which you want to set the transposition, simply click the Next and Prev buttons to move to the Staff Attributes windows for the other staves.

• Click OK.

TO DISPLAY A SCORE IN CONCERT PITCH (OR IN TRANSPOSED FORM)

Once you've established the transpositions for your instrumental staves as described in "To define a staff transposition," above, you can tell Finale whether or not it should display the full score in its transposed form.

• Choose Options from the Special menu. The Options dialog box appears.

• Click Show Staff Transpositions. If this option is selected, any staff you've defined as a transposing staff will appear in its transposed form, just as it will when the part is extracted. If you don't select this option, all music will appear in its untransposed (concert pitch) form.

• Click OK. If you print the full score, the staves will appear as they do on the screen. When you extract parts, the extracted parts *always* appear in their transposed form, regardless of whether Show Staff Transpositions is selected. (The only exception is the Special Part Extraction method, for which parts are printed transposed or untransposed according to the setting you've just made.)

TO ENTER PRETRANSPOSED MUSIC ONTO A TRANSPOSING STAFF (STEP-TIME MUSIC INPUT)

You might wonder how Finale handles notes you input on a transposing staff—does it consider the notes you're entering to be the *concert* pitches or the *written* ones? When you're using the step-time music entry tools (the Simple Note Entry and Speedy Note Entry tools), it's up to you.

The following instructions show you how to specify that the notes you're entering have *already* been transposed—for example, if you're copying an existing score.

• Choose Options from the Special menu. The Options dialog box appears.

- Select Show Staff Transpositions, if it's not already selected. Click OK. When you return to the score, you'll see by the key signatures that Finale is displaying the transposing staves in their transposed form. In this mode, any new notes you enter with either step-time input tool are considered *already transposed*. In other words, if you play a C on the MIDI keyboard, it appears as a C on the transposed staff, even though it will *play back* as some other note, because you've just entered a *written* C.

  If you want to enter the *concert* pitches, choose Options again and click Show Staff Transpositions again (so that the X disappears from the check box). When you return to the score, Finale displays the contents of transposing staves at concert pitch. Any music you enter with either step-time input tool is now considered at *concert* pitch. When you turn Show Staff Transpositions back on, it will be appropriately transposed.

TO ENTER PRETRANSPOSED MUSIC ONTO A TRANSPOSING STAFF (REAL-TIME MUSIC INPUT)

Once you've created a transposing staff, Finale assumes that any notes you enter with one of the *real-time* music input tools—HyperScribe or the Transcription Tool—are *untransposed* (that is, they're concert pitches).

You may occasionally want Finale to assume that the notes you're entering have *already* been transposed—if you're entering an existing score into Finale. There's no specific way to let Finale know your real-time music input has already been transposed. The solution is to go ahead and enter them, letting Finale transpose them *again*, so that the temporary result is that all the notes are too high (or too low), then manually transpose the incorrectly transposed notes *back* to their correct written pitches.

- Enter the part in its already transposed form. Finale transposes the pitches *again*, resulting in a double transposition.
- Click the Mass Mover Tool ⊞, then click to the left of the staff you need to correct. The entire staff is highlighted.
- While pressing the 6 key, double-click the staff. The Transpose Chromatic box appears.
- Specify the interval needed to transpose the notes to their correct "written" pitches. In other words, if you're working on a trumpet part, you'd specify Down a Major Second as the transposition interval.
- Click OK. Finale transposes all notes on the staff back to their correct written pitches.

Transposing parts See "Transposing instruments."

Treble clef The treble (or G) clef 𝄞 is number 0 (zero) in Finale's default clef-numbering scheme. Any new staff you create initially appears with the treble clef, unless you specify a different default clef, as described below.

Any clef change in Finale is fully intelligent, renotating the music as necessary without affecting playback.

TO SET A STAFF (OR CHANGE A STAFF) TO TREBLE CLEF

- Click the Clef Tool 𝄢.
- Click the measure where you want the treble clef to begin. The Clef for Measure (#) dialog box appears. (If there's no music in the measure, Finale asks if you want to insert a "real" whole rest so that it can proceed with the clef change. Click OK.)
- Type 0 (zero) into the *Clef* box. Alternate method: click the *word* *Clef* and double-click the treble clef (leftmost clef, top row) in the palette that appears.
- If the new clef is to begin the measure, click OK. A box appears, asking you to specify the region to be affected. (At the end of this region, the clef currently in force will be

restored.) Click the appropriate region description: This Measure Only, This Measure Through ___, or This Measure Through the End of the Piece.

- If the new clef is to begin in the middle of the measure, click Go to Multiple. You return to the score, with the clef—which now has a handle—at the beginning of the staff.
- Drag the clef's handle right, left, up, or down to move it. The notes before and after it will be renotated automatically.

TO CHANGE THE DEFAULT CLEF

- Choose Parameters from the Special menu. The Parameters dialog box appears.
- Click *Default Clef*. A palette of clefs appears.
- Double-click the desired default clef. Click OK. Any new staff you create with the New Staff Tool will initially appear with the clef you specified. For information on creating your own clefs, see "Clefs."

Tremolando See "Tremolos."

Tremolos
A tremolo marking, usually used to indicate either the rapid restriking of a note or a rapid alternation between notes, can be either *measured* (where each note is struck every eighth note or sixteenth note, for example) or *unmeasured* (where the notes are played as fast as possible, out of time). There are several ways to create a tremolo marking in Finale, depending on the effect you want to create.

TO PLACE A TREMOLO MARKING ⁄, ⁄, OR ⁄ (NOTE EXPRESSION)

You can place one of these markings on a note stem (for a string tremolo, for example) or above or below a note. You can also place one between two stems to indicate a rapid alternation between the two pitches.

- Click the Note Expression Tool 🔲.
- Click on, above, or below the note to which you want to attach the tremolo marking. The Note Expression Selection box appears.
- If you see the tremolo marking in the selection box, double-click it. If you have loaded a Note Expression Library (or if DEFAULT.MUS is in place), the tremolo marking will appear in the palette. When you double-click it, you return to the score, and the marking is attached to the note.
- If you don't see the tremolo marking in the selection box, click Create. The Note Expression Definition box appears.
- Type ALT0190. In the Petrucci music font, ALT0190 is the unmeasured tremolo (⁄) marking. To produce the measured eighth and measured sixteenth note tremolo markings (⁄ and ⁄), type Shift-1 or Shift-2, respectively.
- Click OK or Select in each dialog box to return to the score.

### TO MOVE OR DELETE A NOTE EXPRESSION TREMOLO MARKING

- Click the Note Expression Tool 🔲.
- If the marking's handle isn't visible, click the note to which it was attached.
- Drag the handle to move the marking. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the marking and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO COPY TREMOLO MARKINGS (AND OTHER ARTICULATIONS)

See "Expressions: Note Expressions—To copy Note Expressions."

TO CREATE A MEASURED OR UNMEASURED TREMOLO MARKING (SHAPE EXPRESSION)

Another form of tremolo often connects two longer values—for example, whole notes, as shown here:
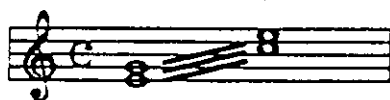
It's customary to notate the tremolo duration *twice*—once for each part of the tremolo. Therefore, a measure displaying a whole-note tremolo appears to display a total duration of eight beats (two whole notes with the tremolo marking between them). If you don't wish to use this double-value custom, skip to the instruction marked by the coda sign.

• Click the Measure Attributes Tool ▣ . A handle appears on each barline.

• Double-click the handle of the ending barline of the tremolo measure. The Measure Attributes window appears.

• Click Track Total Duration. This option will allow you to put more notes in the measure than technically allowed by the time signature—for example, you'll be placing two whole notes in a 4/4 measure in order to notate the long tremolo in the customary way.

• Click OK. Now you'll create the tremolo marking itself.

⊕ Click the Staff Expression Tool ▣ .

• Click on, above, or below the note to which you want to attach the tremolo marking. The Staff Expression Selection box appears.

• Click Shape. If the marking appears in the palette, double-click it, then click OK. The marking appears in the score, where you can adjust its position (see below). However, if you plan to place *more than one* of this Shape Expression into the score, be sure to do so with the use of *Metatools*. See "Expressions: Staff Expressions—To create Note, Staff, or Score Expression Metatools" for full instructions.

• Click Create. In the following dialog boxes, click *Shape ID* and Create. The Shape Designer appears.

• Click the Line Thickness Tool ▣ , enter 200, and click OK. The next step takes you through the creation of three thick diagonal slashes. A negative Y coordinate means you're drawing a line downward, and a negative X coordinate means you're drawing a line that goes to the left. All of these numbers are measurements in EVPUs (288 per inch). For a complete discussion of the Shape Designer, see "Shape Designer."

• Fill in the coordinate boxes as shown below. After you enter each pair, click the specified tool.

X:	Y:	Tool
100	20	Line Tool ▣
0	–20	Move Tool ▣
100	0	Line Tool ▣
0	–40	Move Tool ▣
100	–20	Line Tool ▣

If you make a mistake along the way, click Undo to cancel your last operation. These numbers produce a three-line unmeasured tremolo symbol.

• Drag the gray square handles of the bounding box so that it just encloses the shape.

• Click OK or Select in each dialog box to return to the score. You've just created a *Shape Expression*. As with other Shape Expressions, if you anticipate placing into the score more than one copy of the Shape Expression you just created, you must do so using a *Metatool*. Otherwise, if you reshape or adjust any *one* tremolo marking, you'll reshape *all* occurrences of it. See "Expressions: Staff Expressions—To create Note, Staff, or Score Expression Metatools" for full instructions.

There's an alternate, more advanced method of creating a Shape Expression three-slash tremolo marking that ensures that the slashes will remain perfectly parallel and uniform in length. In essence, the technique is to create a *single* slash in the Shape Designer (by entering only the top pair of coordinates in the table above, then clicking the Line Tool). Place this one-slash marking into the score *three times* and align them only a few EVPUs apart (you can specify exact EVPU coordinates as you're placing any Staff Expression or Score Expression. See "Expression Assignment dialog box" in *Finale Reference*).

Now, when you adjust any one of the three slashes, the other two move in tandem, so that they're always perfectly parallel and have the same length. The only complication that may arise using this method is that if you're not careful, you'll reshape *all* tremolo marking Shape Expressions in your file when you edit any one of them. Therefore, be sure to enter the *first* of every three slashes using a Shape Expression Metatool (see "Expressions: Staff Expressions—To create a Shape Expression Metatool"). Place the *second and third* slashes into the score *without* using a Metatool—in other words, by clicking the note with the Staff Expression attached to it. Double-click the *last* slash shape that appears in the Shape Expression Selection box. In other words, you're double-clicking the *same* slash shape that you just created when you placed the first slash into the score with a Metatool.

TO MOVE OR DELETE THE SHAPE EXPRESSION TREMOLO MARKING

- Click the Staff Expression Tool 🗷 .
- Click the note to which the tremolo was attached. Six handles appear—one at each end of each line. The right handles control the angle of each individual line. The left handles control the vertical positioning of each line.
- While pressing the CTRL key, drag the right handles, one at a time, to change the angle and length of the tremolo. As you drag the right handles, the lines will grow longer or shorter. (By pressing CTRL, you tell Finale to leave all the *other* handles in position.) If you prefer the kind of tremolo marking in which the *outer* line connects the ends of the stems of, for example, two half notes, you can drag the outer line to the desired length independently. Be sure to check the effect in Page View before printing to assure that the measure hasn't widened slightly, pulling the note stems out of contact with the outer line of your tremolo marking.

TO CREATE A HALF-NOTE TREMOLO MARKING

Here's another method for creating a tremolo marking. This kind of marking, useful primarily for stemmed notes such as half notes, can be measured or unmeasured.

To create "half-note" tremolo notation, create the notes as thirty-second notes (left). Use the Special Tools Tool to change the noteheads to half noteheads (middle). If you want, use the Beam Extension Tool (within the Special Tools) to slightly shorten the inner "beams" (right).

- Enter the pair of notes to be beamed by the tremolo as *eighth, sixteenth,* or *thirty-second notes.* In other words, if the result will be a pair of half notes connected by a measured "eighth-note" tremolo marking (one slash—or "beam," as it were), enter the two notes as eighth notes. If the measured tremolo is to display two slashes (or "beams"), enter them as sixteenth notes, and so on.

You'll probably want to drag the notes farther apart, particularly if they're thirty-second notes. To do so, click the Speedy Note Entry Tool 🗷 , click the measure, and drag the notes.

- Click the Special Tools Tool ⊞ , and click the tremolo measure. You enter the Special Tools window.
- Click the Notehead Tool ⊞ . A handle appears on each notehead.
- Shift-click the handle of the first note in the tremolo pair. A palette appears, displaying every music character in the Petrucci music font. The half-note notehead is in the far right column, sixth from the bottom.
- Double-click the half-note notehead. Repeat the Shift-click process with the second notehead in the pair, so that both appear to be half notes, joined by the tremolo beam or beams.
  If you *don't* want the tremolo "beams" to actually touch the stems of the notes, you can adjust them to create a slight gap between each end of the beam and the note stem. To do so, click the Beam Extension Tool ⊞ , and drag the beam handles inward.
- Double-click the Control-menu box (upper-left corner of the Special Tools window).

Tremulants See "Tremolos."

Trills
A trill is often notated with two symbols: the *tr* indication and a wavy extension line (~) that indicates the length of the trill. Both components of a trill are Note Expressions. If you've loaded a Note Expression library into your file (or if DEFAULT.MUS is in place), you don't have to create the markings.

TO CREATE THE TRILL (*tr*) MARKING ON A NOTE
These instructions create a graphic trill marking only. If you want the trill marking to play back, see "To define a trill marking for playback," below.
- Click the Note Expression Tool ⊞ .
- Click on, above, or below the note. The Note Expression Selection box appears.
- If you see the *tr* marking in the selection box, double-click it. You return to the score, and the marking is attached to the note.
- If you don't see see the *tr* marking in the selection box, click Create. The Note Expression Definition box appears.
- Type ALT0217. In the Petrucci music font, ALT0217 is the *tr* mark.
- Click OK or Select in each dialog box to return to the score. The marking appears at the spot you clicked.

TO CREATE A SMALL ACCIDENTAL IN PARENTHESES
To let the player know which notes are to be trilled, a small accidental, sometimes in parentheses, is often placed next to the *tr* symbol. (This tells the player to raise or lower the written pitch by a half step for the trill.)
- Click the Note Expression Tool ⊞ .
- Click on, above, or below the note. The Note Expression Selection box appears. If the marking already appears in the palette, double-click it. You return to the score.
- Click Create. The Note Expression Definition box appears.
- Type the symbol corresponding to the desired Petrucci music font accidental in parentheses. In the Petrucci music font, the left bracket corresponds to the small sharp in parentheses (♯). Type Shift–left bracket ({) for the (♭) symbol, ALT0210 for the (♮) symbol, ALT0211 for the (♭) symbol, or the right bracket (]) for the (♮) symbol.
- Click OK or Select in each dialog box to return to the score.

TO MOVE OR DELETE THE *tr* MARKING (OR THE ACCIDENTAL)

- Click the Note Expression Tool ⌷ .
- If the marking's handle isn't visible, click the note to which it was attached.
- Drag the handle to move the marking. Select it and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove it. If you delete the marking and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO CREATE THE TRILL EXTENSION LINE (WAVY LINE)

- Click the Note Expression Tool ⌷ .
- Click on, above, or below the note. The Note Expression Selection box appears.
- If you see the trill extension mark (∿) mark in the selection box, double-click it. You return to the score, and the mark is attached to the note. By dragging this mark's handles horizontally, you can stretch the wavy line as long as you need it to be. See "To extend, move, or delete the trill extension line," below.
- If you don't see the trill extension mark (∿) mark in the selection box, click Create. The Note Expression Definition box appears.
- Type Shift-tilde (~). In the Petrucci music font, Shift-tilde is the trill extension line.
- Click Clone Mark, then click Horizontal.
- Click OK or Select in each dialog box to return to the score. The mark appears in the score, obscured by two handles. See "To extend, move, or delete the trill extension line", next.

TO EXTEND, MOVE, OR DELETE THE TRILL EXTENSION LINE

Create the trill extension line as described above in "To create the trill extension line (wavy line)." If the mark's handles are already visible, skip to the instruction marked by the coda sign.

- Click the Note Expression Tool ⌷ .
- Click the note to which the marking was attached.
- To make the extension line longer, drag its right handle to the right. To move the entire marking, drag the left handle. Select either handle and press the arrow keys to "nudge" it for fine positioning. Select it and press Delete to remove the extension line. If you delete the mark and it still appears to be on the screen, choose Redraw Screen from the View menu.

TO DEFINE A TRILL MARKING FOR PLAYBACK

These instructions will help you to create an intelligent *tr* marking (one that's defined for playback). Because you'll need to use an Executable Shape (see "Expressions: Shape Expressions") to define the trill, you'll have to create the *tr* marking as a Staff Expression instead of a Note Expression. You can still create the trill extension line (above) as a Note Expression, however.

- Click the Staff Expression Tool ⌷ .
- Click on, above, or below the note to which you want to attach the Staff Expression trill mark. The Staff Expression Selection box appears. If you've already created the intelligent trill, double-click it and click OK. The mark appears in the score. Repeat the process with the invisible "restrike keys" expression, if you've already created it (as described here).
- Click Create. The Text Expression Designer appears.
- Type ALT0217. Click Set Font, choose Petrucci 24 point, and click OK. In the Petrucci music font, ALT0217 is the *tr* marking.
- Click Playback. The Playback Definition box appears.

- Click Transposition, then click Execute Shape. You're defining the *tr* mark to affect the pitch (that is, to "transpose" it up or down by a half or whole step). In playback, this transposition will follow the contours of a shape you're about to draw.
- Click Create, *Shape ID*, then Create. The Shape Designer appears.
  The next step takes you through the creation of a zig-zag line that defines the playback contours of your trill. A negative Y coordinate means you're drawing a line downward, and a negative X coordinate means you're drawing a line that goes to the left. All of these numbers are measurements in EVPUs (288 per inch). For a complete discussion of the Shape Designer, see "Shape Designer."
- Fill in the coordinate boxes as shown below. After you enter each pair, click the specified tool.

X:	Y:	Tool:
		Move Tool ☑
0	36	Line Tool ☑
36	0	Line Tool ☑
72	36	Line Tool ☑
108	0	

If you make a mistake along the way, click Undo to cancel your last operation. These numbers produce a small W shape that will govern the contours of the trill effect. This figure produces a trill that changes the pitch by a half step (36 units of the Y coordinate) each eighth note (36 units of the X coordinate), and lasts for one half note's duration, like this:
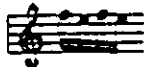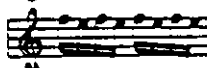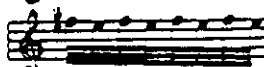

The Executable Shape you design for the playback definition of a trill (left) looks like a graph of the pitches played during the trill (middle). This Executable Shape's default trill sounds like the example on the right.

In another dialog box, you'll tailor the speed, duration, and pitch of the trill to your own specifications.

- Drag the gray square handles of the bounding box so that it just encloses the shape.
- Click OK, then Select. You arrive at the Executable Shape Designer.
- Change the speed of the trilling by entering new values in the Time Scale boxes. At 1:1 (the default speed ratio), the note changes pitch each eighth note, which will seem very slow (unless the tempo is very fast). If you change the second number to 2, so that the Time Scale is 1:2, the trill will occur on sixteenth notes instead.
  In each case, there are two individual up-down "trills" within the trill—in other words, you hear a total of four notes. If you want the trill to last longer, you can tell Finale to repeat the entire trill by entering the additional number of times it's to be played in the Repeat Count box. If the trill now lasts a quarter note, you can type 3 into the Repeat Count box, and the trill will last four times as long (that is, it will repeat three extra times). Finally, the trill shape you drew is a half-step trill. For a whole-step trill, set the

Level Scale to 2:1. (You can use even higher numbers if you want the trill to span an interval greater than a whole step—a minor third, for example.) This table provides some examples of the settings and their effects:

Time Scale	Level Scale	Repeat Count	Playback Effect
1:1	1:1	0	
1:2	1:1	0	
1:2	1:1	1	
1:4	2:1	1	

- Click OK in each dialog box to return to the score. The *tr* marking is in place. The marking, however, only controls the *pitches* occurring during the trill. You must now add a second Staff Expression that will instruct Finale to rearticulate the note each time the pitch changes (so that you'll be able to hear the pitches change). Otherwise, you won't hear any trill at all.
- Click the note again. The Staff Expression Selection palette appears.
- Click Create. The trill marking already appears on the note, so this additional expression can be completely invisible. Therefore, don't type anything into the text box.
- Click Playback. The Playback Definition box appears.
- Click Restrike Keys, then click Execute Shape. The palette of Executable Shapes appears. You should see your original shape.
- Double-click the trill shape. Click OK or Select in each dialog box to return to the score. You can now listen to your trill.
  To edit the playback of either of the two component trill Staff Expressions, CTRL-Shift-double-click its handle. You enter the Playback Definition box. By clicking Execute Shape, you can adjust, for example, the Time Scale or Level Scale for the trill.

To MOVE OR DELETE THE STAFF EXPRESSION TRILL MARKING
- Click the Staff Expression Tool 🔳.
- Click the note to which the trill marking was attached. Its handle appears.
- Drag the handle to move the trill marking. Select it and press Delete to remove it.

Triplets See "Tuplets."

Tuplets A tuplet is any irregular grouping of rhythmic values—triplets, quintuplets, septuplets, and so on. You can create tuplets either in real-time or in step-time, and you can define every aspect of the visual appearance of the tuplets, including whether or not they include a bracket, a number, a slur, and so on.

To TURN "NORMAL" NOTES INTO A TUPLET GROUP
- Click the Tuplet Tool 🔳.
- Click the first note to be included in the tuplet group. The Tuplet Temporal Definition box appears.
- Specify the rhythmic composition of the tuplet. The left half of the dialog box indicates how many notes of what rhythmic value fit in the space normally allotted (to how many notes of what rhythmic value). Enter the *number* of each rhythmic value in the text boxes. Specify the *rhythmic value* itself by clicking the appropriate button.

For example, to define a standard quarter note triplet, you could fill out the values either as "3 (quarters) in the space of 2 (quarters)," or "3 (quarters) in the space of 1 (half)."

- Specify the visual appearance of the tuplet.

The right side of the dialog box specifies various aspects governing the visual appearance of the tuplet. These options include Number Only, Number With Bracket, and so on, as shown below:
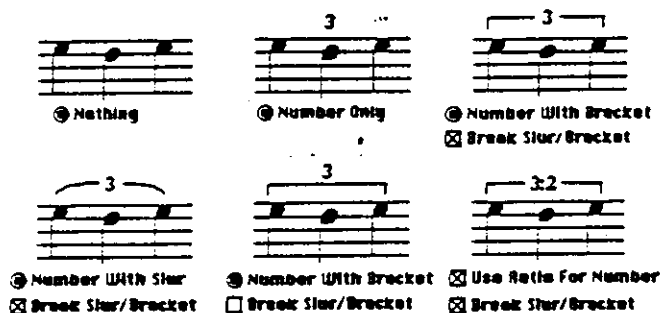
The numbers in the four boxes at the top determine the EVPU values (288 per inch) for each of the four handles on a tuplet bracket. For a standard horizontal bracket with hooks on each end, enter numbers like this:

Tuplet Visual Definition

Number Offset	56
Left Offset	-9
Middle Offset	12
Right Offset	-9

You can always change the angle or position of the bracket or slur once it's in the score. If you want the "3" (or whatever number appears over the tuplet) to appear in the middle of a slur or bracket instead of appearing above or below it, be sure to click Break Slur/Bracket. If you're creating a complex tuplet, you can click Use Ratio for Number instead of placing a simple digit above the tuplet (like 3, for example). Finale will express the tuplet as a ratio (such as 3:2, using the numbers you entered in the text boxes for "___ in the space of ___").

- Click OK.

TO ADJUST, MOVE, OR DELETE A TUPLET

- Click the Tuplet Tool 🖫, then click the first note of the tuplet. Handles appear on the tuplet's bracket (or slur, or number).
- To adjust the bracket, slur, or number, drag the appropriate handle up or down (see the figure below). To delete the tuplet definition (and restore the notes to "normal"), click any handle and press Delete.


Drag this handle to move the bracket up or down relative to the number.

Drag this handle to move the left endpoint up or down (and change the length of the "hook").

Drag this handle to move the entire bracket (including the number) up or down.

Drag this handle to move the right endpoint up or down (and change the bracket's angle).

To enter tuplets with the Speedy Note Entry Tool

- Click the Speedy Note Entry Tool ⊠ , and click the target measure. The editing frame appears.
- Press CTRL-number. You can press any number between 2 and 9 to specify the tuplet value that you're about to enter. When you do so, the number you press appears in the upper right corner of the editing frame, telling you that Finale is ready to group the next notes you enter as a tuplet defined by that number. If you need to enter a more complex tuplet (or want to specify a particular bracket or slur configuration), press CTRL-1, and the Tuplet Temporal Definition dialog box will appear (see "To turn 'normal' notes into a tuplet," above).
- Enter the notes of the tuplet. Finale automatically groups them and brackets them according to the default visual tuplet appearance settings (see "To predefine the appearance of tuplets," below).

To create a nested tuplet

Under certain circumstances, you may need to create tuplets within tuplets, as shown in the figure below. In general, the procedure for creating nested tuplets is exactly the same as creating non-nested tuplets. The only rule you need to remember is to create the *outer tuplet first*.
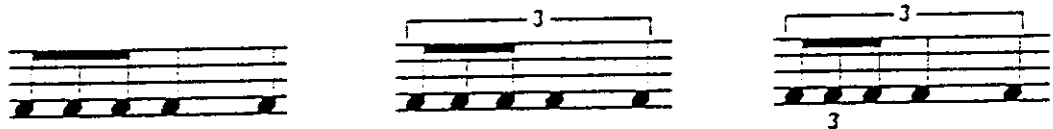
To create a nested tuplet, start by entering the notes as non-tuplet values (left). Create the outer tuplet first (middle). Finally, define the inner tuplet (right). Adjust the brackets or slurs as necessary.

To transcribe tuplets from a real-time performance

For full instructions on the use of Finale's real-time transcription tools, HyperScribe and the Transcription Tool, see "Real-time transcription (HyperScribe)" and "Real-time recording (Transcription Tool)." However, you may find these supplementary instructions helpful.

- Access the Floating Quantization dialog box. If you're about to use HyperScribe, you access this box by choosing Tap Duration from the HyperScribe menu. When the Tap Duration box appears, click Float Quantizing. If you've just recorded a performance in the Transcription Tool, choose Floating from the Transcribe menu. In both cases, note that the *static* quantization level you've specified (HyperScribe, Division text box or Transcription window, the Transcribe menu commands) will be ignored.
- Click Non-Timed Tuplet. When you create the transcription, Finale will count how many notes you play between each two taps (or clicks, or beats). If it calculates that you played more notes between any two taps than you specified by your quantization setting, Finale assumes that the excess notes must be part of a tuplet, and will adopt a finer quantization value for that beat alone. In other words, if you've specified eighth-note quantization, and Finale encounters a beat in which there are three notes, it automatically creates a triplet, no matter how unevenly they were played.

  If you want Finale to attempt to distinguish between triplets and other combinations of three notes—an eighth and two sixteenths, for example—choose the middle option, Timed Tuplet. Needless to say, a Floating Quantization setting of Timed Tuplet requires that you play accurately enough for the computer to make such distinctions. (The first option, Timed Non-Tuplet, tells Finale that there are to be *no* tuplets in your transcription, only *even* subdivisions of the quantization value—eighths, sixteenths, and so on.)

- Enter the number of the highest tuplet in the Highest Tuplet box. "Highest" means finest. The number in this box represents a *subdivision* of the beat. The default is 4—in other words, the smallest value Finale will transcribe is a *sixteenth* note (assuming the tap or click value was a quarter note). If you plan to transcribe quintuplets, enter 5; septuplets, enter 7; and so on. For triplets, you can leave the default values in place.
  If you do plan to transcribe very fine values (Highest Tuplet equal to 5, 7, and so on), you'll probably have to decrease the Sensitivity value to get accurate results. Make a sample transcription. If Finale doesn't accurately transcribe your tuplets—that is, if grace notes appear—then you need to try halving the Sensitivity value. Click the word "Sensitivity" (also in the Float Quantization dialog box) to display a palette of duration values, letting you specify how far Finale will "search" to identify a tuplet. Click the next smaller value and try the transcription again.
- Click Float. Continue with the transcription in the usual way.

To PREDEFINE THE APPEARANCE OF TUPLETS

If you create tuplets with any of the methods described above, you don't have to redefine the visual appearance of each tuplet each time you create one. Instead, you can set the visual appearance—including whether or not to include a slur, bracket, and so on—in advance.

- CTRL-click the Tuplet Tool 🔢. The Default Tuplet Visual Definition box appears.
- Specify the default tuplet appearance. For a more complete discussion of the options in this box, see "To turn 'normal' notes into a tuplet group," above.
- Click OK. Within this file, any time you create a tuplet with any of the entry tools, Finale will automatically follow your specifications to draw it.

To CREATE A TUPLET METATOOL

If you have an especially complex tuplet—especially if it occurs more than once in the piece—you may want to create a Tuplet Metatool and avoid the Tuplet Temporal Definition box altogether.

- Click the Tuplet Tool 🔢.
- Press CTRL-number. You can press any number between 1 and 8 (to define up to 8 Metatools). The Tuplet Temporal Definition dialog box appears.
- Specify the temporal and visual definition of the tuplet. For a more complete discussion of the options in this box, see "To turn 'normal' notes into a tuplet group," above.
- Click OK. To use the Metatool, click the first note of the tuplet you're creating while pressing the number you used in the second step. The notes are instantly defined according to your specifications, complete with slur or bracket, if you specified one.

Turns See "Mordents."

Two voices See "Multiple voices."

Underlines (in lyrics) See "Lyrics—To draw a 'word extension' underline."

Upbow See "Bowing."

Velocity See "Key velocity."

Vocal music See also "Choral music," "Hymns," "Lyrics."

One convention used in opera or art song notation is beaming to lyrics. In this practice, eighth notes and sixteenth notes are never beamed together in the vocal line except when a syllable is sustained through more than one note (as in a melisma).

TO BEAM ACCORDING TO LYRIC SYLLABLES

* Click the Mass Mover Tool ⊟, and select the region to be affected. Click to select one measure, Shift-click to select additional measures, drag-enclose to select several on-screen measures, click to the left of the staff to select the entire staff, or choose Select All from the Edit menu to select the entire file. You can also use the Set Selection command in the Mass Mover menu to select a large region without scrolling.

* Choose Beam to Lyrics from the Mass Edit menu. The Lyric Rebeaming dialog box appears.

* Specify the type of lyric you want rebeamed. You can specify an individual Verse, Chorus, or Section, if you wish, by clicking Break Beam Only At, choosing the lyric type, and entering the Verse, Chorus, or Section number.

* If you want beams broken at each beat, click Factor In Time Signature. If Finale factors in the time signature, it will begin a new beam at each beat even if a lyric melisma is still continuing. If you don't use this option, the melisma beam will continue all the way through the measure—as long as the melisma lasts.

* Click OK.

Volume See "Key velocity."

Wavy lines See "Trills."

Whole notes You can enter whole notes into the score with or without MIDI keyboard input. You can also change any existing note into a whole note.

TO ADD A WHOLE NOTE (USING MIDI INPUT)

• Click the Speedy Note Entry Tool ⌐, then click the target measure. The editing frame appears. Position the insertion bar to the right of any existing notes in the measure.

• Hold down a key or keys on the synthesizer and press the 7 key on the computer keyboard. The pitch or pitches you played appear as a whole note.

TO ADD A WHOLE NOTE (WITHOUT MIDI INPUT)

• Click the Simple Note Entry Tool ⌐. The Simple Note palette appears.

• Click the Whole Note icon ⌐.

• Click where you want the note to appear in the score. A whole note appears.

TO CHANGE A NOTE'S DURATION TO A WHOLE NOTE

• Click the Speedy Note Entry Tool ⌐. Click the target measure. The editing frame appears.

• Press the right arrow until the insertion bar is on the note whose duration you want to change.

• Press the 7 key. The note changes to a whole note.
  Alternate method: Click the Simple Note Entry Tool ⌐, click the Whole Note icon ⌐, click the note you want to change.

Whole rests To save you extra work, Finale automatically places a default whole rest in every blank measure in the score. It's important to understand the difference between one of these "default" whole rests and a "real" whole rest that you've entered yourself using any of Finale's music input methods.

For example, a chord or a lyric syllable may be attached to a real whole rest (although Finale automatically skips rests when assigning lyrics by itself). Another difference is that only a real whole rest can be moved up or down with the Speedy Note Entry Tool.

Finale considers a "real" whole rest an *entry*—something you placed in the score—just like a note or another kind of rest. Therefore, a real whole rest will not be part of a multimeasure block rest when you extract parts, it will be placed in a measure by itself. Furthermore, a real whole rest counts as "music" when you optimize staves (suppress the display of blank staves within a given system to produce a more compact and readable full score). Even though a staff appears to be empty, Finale won't hide it if it contains a real whole rest—a fact you can use to your advantage if you want to "force" an otherwise empty staff to appear in a certain system when you're optimizing staves. Just add a real whole rest, and Finale won't hide the staff.

TO ADD A REAL WHOLE REST

• Click the Speedy Note Entry Tool ⌐, and click the target measure. The editing frame appears.

• Press the 7 key. Unless Use MIDI Keyboard has been turned off in the SpeedOptions menu, a whole rest appears. (If not, a whole *note* appears, click it and press Backspace to turn it into a whole rest.)